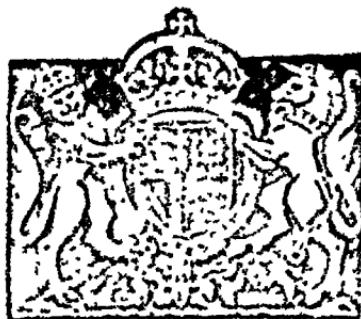


BUREAU OF EDUCATION, INDIA

Proceedings of the Seventh Meeting
of the Central Advisory Board of
Education in India held at Hyderabad-
Deccan on the 14th and 15th January,
1942



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Proceedings of the Seventh Meeting of the Central Advisory Board of Education held at Hyderabad-Deccan on the 14th and 15th January, 1942.

At the invitation of His Exalted Highness the Nizam's Government the Central Advisory Board of Education held their seventh meeting at Hyderabad-Deccan on Wednesday and Thursday, January the 14th and 15th, 1942. The Standing Committees of the Board met on January 13th. The following members were present:—

Nominated by the Government of India.

Rajkumari Amrit Kaur.

The Right Rev. the Bishop of Lahore.

The Hon'ble Sir Maurice Gwyer, K.C.B., K.C.S.I., Chief Justice of India.

Srimati Renuka Ray, B.Sc. (Econ.) London.

P. F. S. Warren, Esq., B.A. (Cantab.), A.M.I.C.E., M.I.E. (Ind.), Director, Messrs. Jessop and Co., Calcutta.

Ex-officio.

John Sargent, Esq., M.A., C.I.E., Educational Commissioner with the Government of India.

Elected by the Council of State.

The Hon'ble Diwan Bahadur Sir K. Ramunni Menon, M.A. (Cantab.), L.L.D. (Hon'y.).

Elected by the Legislative Assembly.

Dr. P. N. Banerjea, M.A., D.Sc.(Lond.), Barrister-at-Law, M.I.A.

Dr. Sir Zia-ud-Din Ahmad, Ph.D., D.Sc., C.I.E., M.L.A., Vice-Chancellor, Aligarh Muslim University.

Nominated by the Inter-University Board, India.

Khan Bahadur Mian M. Afzal Hussain, M.Sc., M.A. (Cantab.), I.A.S., Vice-Chancellor, University of the Punjab.

Representatives of Provincial Governments.

S. C. Roy, Esq., M.A.(Lond.), I.E.S., Director of Public Instruction, Assam.

J. M. Bottomley, Esq., M.A., C.I.E., I.E.S., Director of Public Instruction, Bengal.

A. S. Khan, Esq., M.Sc., I.E.S., Director of Public Instruction, Bihar.

G. F. S. Collins, Esq., M.A., C.I.E., O.B.E., I.C.S., Adviser to H. E. the Governor of Bombay.

S. N. Moos, Esq., M.A. (Cantab.), I.E.S., Director of Public Instruction, *Bombay*.

Dr. G. G. R. Hunter, M.A., D.Phil.(Oxon.), F.R.A.I., I.E.S., Director of Public Instruction, *Central Provinces*.

R. M. Savur, Esq., B.A. (Cantab.), Divisional Inspector of Schools, *Coimbatore, Madras*.

Khan Sahib Khan Shah Alam Khan, M.A., LL.B., Director of Public Instruction, *N. W. F. Province*.

S. C. Tripathi, Esq., M.A., I.E.S., Director of Public Instruction, *Orissa*.

W. H. F. Armstrong, Esq., M.A., F.C.S., I.E.S., Director of Public Instruction, *Punjab*.

The Hon'ble Mr. Illahi Bakhsh Nawazali Pir, Minister of Education, *Sind*.

Shamsul-Ulema Dr. U. M. Daudpota, M.A., Ph.D., Director of Public Instruction, *Sind*.

Dr. Panna Lall, D.Litt., C.I.E., I.C.S., Adviser to H. E. the Governor of the *United Provinces*.

Dr. D. M. Sen, M.A., Ph.D. (Lond.), Secretary, Central Advisory Board of Education in India was also present.

Nawab Mahdi Yar Jung Bahadur, M.A. (Oxon.), Minister in charge of Education and Finance, H. E. H. the Nizam's Government, Hyderabad-Deccan was present at the meeting by special invitation.

The Chairman of the Board, the Hon'ble Mr. Nalini Ranjan Sarker, Member of the Viceroy's Executive Council in charge of the Department of Education, Health and Lands, who was unable to be present owing to ill-health, nominated the Hon'ble Sir Maurice Gwyer to preside in his stead.

The following members were unable to attend the meeting owing to illness or other reasons:—

C. V. Chandrasekharan, Esq., M.A.(Oxon.), F.R.H.S., Pro-Vice-Chancellor, University of Travancore.

The Hon'ble Sir Andrew Clow, K.C.S.I., C.I.E., I.C.S., Member of the Viceroy's Executive Council, Department of Communications.

Dr. Sir C. Ramalinga Reddy, M.A. (Cantab.), Hon. D. Litt., M.L.C., Vice-Chancellor, Andhra University.

Dr. Sir A. Fazlur Rahman, B.A. (Oxon.), LL.D., Member, Federal Public Service Commission.

Sir Shri Ram, Mill-owner, Delhi.

Rao Bahadur Sir V. T. Krishnamachari, K.C.I.E., Dewan of Baroda.

2. At the opening session ~~Ms. Tavelancy~~ Nawab Sir Muhammad Ahmad Said Khan, K.C.S.I., K.C.I.E., M.B.E., President of H. E. H. the Nizam's Executive Council was present to welcome the members of

the Board. He first of all delivered the following message from His Exalted Highness :—

"I welcome the session of the Central Advisory Board of Education to the Capital of my Dominions, and am gratified to learn that it has done work of singular utility in co-ordinating the educational policies and systems in the States and the Provinces.

About twenty-five years ago my Government took the momentous decision of adopting a language of India, the most widely spoken and understood in India, as the medium of instruction in my Dominions and the Osmania University, which has been founded on that principle, has since passed the experimental stage.

Scarcity of scientific nomenclature in the Indian languages led my Government to establish a Translation Bureau, attached to the University, and I particularly welcome the fact that your Sub-Committee, which held its last sitting in Hyderabad, has framed rules for devising a system of nomenclature on a uniform basis so that they may be used by all the principal Indian languages. I consider that to be work of national importance.

I wish all success to your deliberations, and trust, that they will bear early fruit."

HIS EXCELLENCY then proceeded :—

"It gives me great pleasure and satisfaction to welcome a distinguished gathering like yours, of educationists and men concerned with the administration of education in different parts of India. The pleasure is, however, mixed with pain, particularly for those of us having connections with Hyderabad, at not seeing in our midst to-day Sir Akbar Hydari whose sad death we all mourn deeply. Sir Akbar was, as you are all perhaps aware, due to arrive here this week to join us, and we were all looking forward to welcoming him, but fate had it otherwise, and instead of greeting him we accompanied his remains this very week to their last resting place. Sir Akbar's services to the cause of education, both as an administrator and as an educationist, are such as to entitle him to the gratitude of his countrymen. Twenty-three years ago, Hyderabad substituted Urdu, one of the principal languages of India and its own State language, as the medium of instruction for English in higher education. Since then, the process of vernacularisation has progressed rapidly both here and in other parts of India, and the Osmania University itself has passed the experimental stage and is a settled and established system. The efforts hitherto made by its Translation Bureau proved most helpful to the work of the Sub-Committee of this Advisory Board in devising a uniform scientific terminology for India, and it was only last year that the Sub-Committee held a meeting here under the Chairmanship of Sir Akbar. The problem undertaken by it is naturally difficult, but it is expected from the strong and able personnel of the Sub-Committee that it will succeed ultimately not only in evolving a common scientific terminology for all India but also having it on a certain system which may be capable of being adhered to as new terms find their way into the domain of language. The task is indeed a noble one; in Europe and America, despite the existence of highly developed nationalities and national languages, such common terminology based largely on Greek and Latin, and in some cases even Semitic derivations, has tended to facilitate the mutual approach of scientific minds and widen the culture

science and learning on an international basis, with much corresponding advantage to the development of scientific and technical research. With the help of similar basic and derivative languages, like Sanskrit and Arabic, Persian and 'Bhasha', we can succeed—and the natural evolution of language may almost be said to have already succeeded—in purging, the future scientific thought of India of the disadvantages of Babel.

As you are no doubt aware, we have only recently reorganised our educational system on entirely new lines. While its primary stage continues to be based entirely on the mother-tongue of the pupils according to the lingual divisions existing in the State, a new scheme of technical and vocational bias has been introduced from the post-primary stage upwards up to even the post-collegiate stage. In the process of adapting education to the direct needs of our people—a need which induced us first to introduce the language of the state as the medium of higher instruction—we have also, in view specially of, the problem of the educated unemployed and the necessity to improve our agricultural and industrial economy, introduced the above bias on the basis of detailed recommendations received from Mr. Abbott, formerly Chief Inspector of Technical Schools of His Majesty's Government, who was invited to assist us in the matter. Since then the more urgent requirements of war and of war industries have led us to give preference, wherever we can, even in the introduction of technical and vocational training, to such training as is required for war purposes and war industries, and while this does not, in any way affect the programme of vocational education except to the extent of the preference thus given and will not in any case affect original instruction, the technical training envisaged will on the one hand, help Hyderabad in its war efforts and, on the other, be of enormous help in the development of industries in the State after the war. There is no reason why similar steps should not be taken in the rest of India and I have no doubt that the question is exercising your own minds in view both of the immediate needs of the situation and of the lesson that we have been taught by the exigencies of this war, of industrial and economic self-sufficiency.

I regret that it has not been possible for the Hon'ble Sir Andrew Clow, the Hon'ble Mr. N. R. Sarker and Sir V. T. Krishnamachari to be present at this meeting; I was personally looking forward to meeting them again and welcoming them as our guests. In Sir Maurice Gwyer you have a person of such admittedly wide versatility and interest as to have made the combination possible of the Chief Justice of India with the Vice-Chancellor of the Delhi University. We have been accustomed to hear and read his speeches and to accept them not only as pieces of literature but also as expressions of profound thinking. Under his able chairmanship and ~~in our own devotion to the cause of education, your deliberations~~ ^{Ad-} are bound to be successful and we shall wait with interest their results.

Advisory Board and women now require ...

On the motion of the Chairman the Board expressed their warm appreciation of His Exalted Highness's message. The Chairman also expressed the Board's pleasure at the presence of ~~His Excellency~~ the President of the Council and of the Minister in charge of Education and

Finance and their warm appreciation of the welcome which they had received from His Excellency.—ruu

3. The Board passed the following resolution upon the death of Rt. Hon'ble Sir Akbar Hydari, P.C., LL.D.:—

"The Central Advisory Board of Education has learned with the sincerest regret of the death of the Right Hon'ble Sir Akbar Hydari. Sir Akbar was a member of the Board since its revival in 1935 and throughout this period took a great interest in, and made valuable contributions to the work of the Board. This Board desires to express its sense of the great loss which India and especially Indian Education has suffered through the loss of Sir Akbar Hydari and wishes to place on record its appreciation of the services which he rendered to this Board during his membership and to convey the profound sympathy of all its members to the State of Hyderabad and to Sir Akbar's family."

4. The Chairman then welcomed the new Members of the Board, Srimati Renuka Ray, Khan Bahadur Mian M. Afzal Hussain and Dr. P. N. Banerjea and congratulated those members who had been recipients of Honours since the last meeting of the Board.

5. Before proceeding to the agenda, the Chairman read the following message from the Hon'ble Mr. Nalini Ranjan Sarker:—

"Education being one of the very important subjects in my portfolio, I had eagerly looked forward to participating in the deliberations of this annual meeting of the Central Advisory Board of Education—the first since my assumption of office. For I believe that the Board is engaged in a work of vital significance to the development and well-being of the nation. And I consider that the Board is really destined to play an increasingly important part in stimulating educational progress and co-ordinating educational policy throughout India. Need I say how very disappointed I, therefore, feel that considerations of health should have precluded me from having the pleasure of personally welcoming you all at this meeting to-day. I am, however, happy in the thought that you have a very eminent Chairman in the person of Sir Maurice Gwyer to preside over your meeting. His able guidance ensures the success of your deliberations. It is, therefore, only a personal disappointment that I cannot be present at your deliberations.

Since its inception in 1921, the Central Advisory Board of Education has had a chequered career. It disappeared under the axe of the Indian Retrenchment Committee in 1923. But it was revived again in 1935, so urgent was the need felt for a Central Advisory institution in connection with educational problems. For, although education became a provincial transferred subject in 1921 various acute problems having a bearing on the whole of India had arisen since then and it was recognised that the Government of India was not without its responsibility in the matter specially in co-ordinating educational efforts and in suggesting ways for educational reconstruction. Further it seems to me obvious that the very fact that the provinces and the States of India are for all purposes autonomous, so far as control of education is concerned, only makes it all the more important that there should be some central body which may act both as a forum and as a clearing house for information of practical value.

6

These are the objectives which the Central Advisory Board of Education has before it, and which I am confident it is fulfilling with great credit. The Board has in recent years been responsible for reports on such fundamental issues as Basic Education, Adult Education, Education of Girls and Women, Social Service and a Uniform Scientific Terminology. The agenda for the present meeting also includes several items of immediate interest and of a really practical bearing. For instance no one familiar with the buildings in which so many of our schools are at present housed will under-estimate the importance of trying to establish standards of accommodation which comply with minimum hygienic principles without being hopelessly beyond our means. An inquiry closely linked with this in practical value is that which has been conducted by the Committee set up by my predecessor to consider the steps to be taken to improve the physical well-being of school children. It is also pleasant to read from the report of the Braille Committee that, after several unsuccessful attempts, a real advance has at last been made towards the solution of a problem closely affecting the welfare of a most unfortunate section of the community. Technical education again, even if in many areas it falls outside the purview of Education Department, is a matter which in these days cannot be far from the minds of those who see in the development of India's natural resources a highroad towards her future happiness and prosperity.

I have every confidence that the valuable work which the Board is doing will have important practical results and that it will serve as a wise helpful guide to provincial and State authorities in building up a sound system of public instruction in the areas for which they are responsible. It is my earnest hope that it may be my good fortune, while I have the honour of being your Chairman, to do something more to enlarge further the scope of the Board's activities. I look forward in particular to developing the Bureau of Education, which appears to me to be an essential adjunct to a body of this nature. No one will, I think, deny the urgent need for some organisation which will conduct and collate researches into educational problems peculiar to India and at the same time make available up-to-date information as to educational developments in other parts of the world. Unfortunately, the Bureau exists at present largely in name only, but I do hope that even in these hard times it will not be impossible to find the money which will be needed to make at least a start with the work I have in mind.

May I conclude by expressing the hope that your meeting will be both interesting and useful? I have no doubt whatever that the well-known hospitality of Hyderabad will make your visit thoroughly enjoyable and I can only voice once more my regret at not being with you."

6. The agenda before the Board comprised the following items:—

I. To report that the Proceedings of the last meeting of the Central Advisory Board of Education held at Madras on the 11th and 12th January 1941, were confirmed after circulation to members and that copies were sent to Provincial Governments, Local Administrations, State Governments and Universities in India, and were put on sale.

II. To receive and consider reports from Provincial Governments, etc., on developments in (a) primary, (b) 'basic' education and recommendations, if any, from the appropriate Standing Committees in connection therewith.

III. To receive and consider reports from Provincial Governments, etc., on developments in adult education and recommendations, if any, from the appropriate Standing Committee in connection therewith.

IV. To receive and consider the views of Provincial Governments, etc., with regard to the principles recommended by the Central Advisory Board of Education at their last meeting for determining the award of scholarships from public funds.

V. To receive and consider the views of Provincial Governments, etc., with regard to the recommendations of the Scientific Terminology Committee of the Central Advisory Board of Education as adopted by the Board at their last meeting and to report any action taken by them or by responsible agencies in their areas in connection therewith.

VI. To receive and consider the views of Provincial Governments, etc., with regard to the recommendations of the Social Service and Public Administration Committee of the Central Advisory Board of Education as adopted by the Board at their last meeting and certain further information on the subject supplied by them in respect of work undertaken by voluntary agencies of an all-India character in their areas.

VII. To receive and consider the views of Provincial Governments, etc., with regard to the recommendations made by the Central Advisory Board of Education at their last meeting on the question of separating the School Leaving Certificate Examination from the Matriculation Examination, and recommendations, if any, from the appropriate Standing Committee in connection therewith.

VIII. To receive and consider the views of Provincial Governments, etc., with regard to the recommendations made by the Central Advisory Board of Education at their last meeting on the question of adopting a uniform system of nomenclature for the designation of teachers in universities and colleges.

IX. To receive and consider the views of Provincial Governments, etc., with regard to the recommendation made by the Central Advisory Board of Education at their last meeting that practical hygiene should be included in the courses for teachers in training colleges and training schools.

X. To receive and consider the views of the Inter-University Board with regard to the question of excising undesirable passages from textbooks prescribed for university studies.

XI. To receive and consider reports from Provincial Governments, etc., with regard to the action taken on the recommendation made by the Central Advisory Board of Education at their last meeting on the need for arranging specific instruction in schools on the subject of 'Kindness to animals'.

XII. To receive and consider the report of the Committee on School Buildings appointed by the Central Advisory Board of Education at their last meeting.

XIII. To receive and consider the report of the Committee appointed in accordance with the decision of the Central Advisory Board of Education at their last meeting to examine the question of adopting a uniform Braille Code in the schools for the blind in India.

XIV. To receive and consider the reports of the Committee appointed by the Chairman at the request of the Central Advisory Boards of Health

and Education to consider the steps to be taken to improve the physical condition of school children.

XV. To consider a memorandum on the subject of examinations by Dr. Sir Zia-ud-Din Ahmad.

XVI. To consider the issues raised in a letter No. F. 7525/F., dated the 8th October, 1941, from the Government of Bombay, regarding the question of the introduction of Hindustani in primary and secondary schools and recommendations, if any, from the appropriate Standing Committees in connection therewith.

XVII. To consider the issues arising out of the letter No. 2296-Edn., dated the 8th November, 1941, from the Government of Bengal, regarding the need for financial assistance from the Central Government for Primary Education Schemes in Bengal and recommendations, if any, from the appropriate Standing Committees in connection therewith.

XVIII. To consider a question raised by the Government of Assam with regard to the promotion of technical and industrial education in connection with university and collegiate education in India and recommendations, if any, from the appropriate Standing Committee in connection therewith.

XIX. To consider a recommendation from the Advisory Committee for Educational Broadcasts.

XX. To consider the desirability of appointing a special committee of the Central Advisory Board of Education to prepare a report on the question of the recruitment and training of teachers.

XXI. To consider a recommendation from the Indian Public Schools Conference that scholarships tenable in their schools should be provided out of public funds to assist boys of outstanding ability who would not otherwise be in a position to seek admission thereto and recommendations, if any, from the appropriate Standing Committee in connection therewith.

XXII. To consider a communication from the Youths' Welfare Association.

XXIII. To consider the future functions and composition of the Standing Committees of the Central Advisory Board of Education and to fill vacancies where necessary.

XXIV. To consider the issues raised in a letter No. 7437/F., dated the 18th December 1941, from the Government of Bombay, regarding the experiment of 'Basic' education in Bombay Province.

XXV. To consider the question of the recruitment of Education Officers.

XXVI. To fix the time and place of the eighth meeting of the Central Advisory Board of Education.

7. The explanatory memoranda on items II, III, IV, V, VI, VII, VIII, IX, X, XI, XV, XVI, XVII, XVIII, XX, XXI, XXII, XXIII, XXIV and XXV, of the agenda which had been circulated to the members of the Committee previous to the meeting are reproduced in Appendix I.

8. Item I.—It was reported that the proceedings of the last meeting of the Central Advisory Board of Education held at Madras on the 11th

and 12th January 1941 were confirmed, after circulation to members and that copies were sent to Provincial Governments, Local Administrations, State Governments and Universities in India. They were also put on sale to the public. The information was recorded.

9. *Item II.*—(a) The Standing Committee had no comments to offer on the reports supplied by the Provincial Governments with regard to developments in primary education and the Board decided that the information should be recorded.

(b) (i) The Board endorsed the recommendations of the Standing Committee that information about experiments in 'basic' and other types of progressive education should be collected in future not only from Provincial Governments and States, but also from voluntary agencies with a recognised all-India status.

(ii) In view of the fact that the Board had generally approved the recommendations of the two Committees set up by them in January and December, 1938, to report upon this subject, the Board noted with regret that the Government of Orissa had not seen their way to continue the experiment with regard to 'basic' education after only a year's trial.

10. *Item III.*—The Board considered the report of the Standing Committee (Professional and Vocational Education Committee) on the information supplied by the Provincial Governments and other authorities about recent developments in adult education. The Board observed that while in certain areas expansion had been restricted owing to financial stringency, progress on the whole was being maintained. They realised, however, that so long as present conditions obtain, there is little prospect of adequate sums being available from public funds to enable the work to be developed on a comprehensive scale and they felt that this only increased the importance of making the utmost use of those voluntary agencies, and particularly universities, which are prepared to devote themselves to social service.

The Board, while not desiring to depart from the existing procedure by which communications in respect of matters relating to university education are made through the Inter-University Board, were of opinion that in future issues affecting university education should be referred to the individual universities as well as to the Inter-University Board and that both the Vice-Chancellors and the Registrars should be addressed when the matter is one of urgency.

11. *Item IV.*—The Board noted with satisfaction that the Provincial Governments, Local Administrations, State Governments and Universities in India, were generally in agreement with the principles recommended by the Board at their last meeting for determining the award of scholarships from public funds. It was, however, considered desirable to appoint a Committee to explore the best methods of giving practical effect to these principles and to make suggestions for the guidance of the authorities concerned. The following members were appointed to serve on this Committee:—

W. H. F. Armstrong, Esq., M.A., F.C.S., I.E.S., Director of Public Instruction, Punjab.

J. M. Bottomley, Esq., M.A., C.I.E., I.E.S., Director of Public Instruction, Bengal.

Dr. G. G. R. Hunter, M.A., D.Phil. (Oxon.), F.R.A.I., I.E.S., Director of Public Instruction, Central Provinces & Berar.

S. N. Moos, Esq., M.A. (Cantab.), I.E.S., Director of Public Instruction, Bombay.

J. C. Powell-Price, Esq., M.A., C.I.E., I.E.S., Director of Public Instruction, United Provinces.

John Sargent, Esq., M.A., C.I.E., Educational Commissioner with the Government of India.

R. M. Statham, Esq., M.A., C.I.E., I.E.S., Director of Public Instruction, Madras.

12. *Item V.*—The Board considered the views of Provincial Governments, Local Administrations, State Governments and Universities in India with regard to the recommendations of the Scientific Terminology Committee of the Central Advisory Board of Education as adopted at the last meeting of the Board and the action taken by them or by responsible agencies in their areas in connection therewith.

The Board expressed their satisfaction at the general agreement of the authorities consulted with the recommendations of the report, the only major point about which there was any substantial divergence of opinion being that of the main groups into which Indian languages should be divided. It was decided to appoint a Central Board of Reference as contemplated therein. This Reference Committee will have power to set up expert sub-committees as required and it is hoped that their guidance on general principles as well as their decisions on specific issues submitted to them will prove generally acceptable.

It was further agreed that all questions regarding the grouping of Indian languages according to their natural affinities and issues arising in connection with the adoption of scientific as well as technical terms should come within the purview of this Board of Reference. It was decided that the Reference Board should consist of a Chairman who should be a member of the Central Advisory Board, two scientists and two philologists.

Dr. Sir A. Fazlur Rahman, LL.D., B.A. (Oxon.), was appointed as Chairman and the following, subject to their consenting to serve, were appointed as members:—

Dr. Abdul Haq, B.Litt., Ph.D. (Oxon.), (formerly Head of the Deptt. of Arabic, Osmania University) Secretary, Anjuman-e-Taraqqi-e-Urdu, Delhi.

Dr. Sir. S. S. Bhatnagar, O.B.E., D.Sc., F.Inst.P., F.I.C., Director of Scientific and Industrial Research.

Prof. Suniti Kumar Chatterjee, M.A., D.Litt., Head of the Department of Comparative Philology, Calcutta University.

Sir C. V. Raman, M.A., D.Sc., Ph.D., LL.D., F.R.S., N.L., Head of the Department of Physics, Indian Institute of Science, Bangalore.

13. *Item VI.*—The Board reviewed the reports of the Provincial Governments, Local Administrations, State Governments and Universities in India, with regard to the recommendations of the Social Service and

Public Administration Committee of the Central Advisory Board of Education, as adopted by the Board at the last meeting, and the further information supplied in respect of the work undertaken by voluntary agencies of an all-India character in their areas. While hoping that their recommendations would be implemented, wherever possible, even in the present circumstances, the Board recognised that it might not be feasible in the immediate future to set up the proposed Central Body to be called the All-India Council of Social Service with an institute for research under its control. The Board suggested, however, that in each province and other large administrative area, every effort should be made without delay to stimulate and co-ordinate the work of the various Social Service Agencies, both voluntary and official, and to arrange for the training of social service workers of all grades. It was also decided that the Central Bureau should continue to collect from Provincial Governments and voluntary agencies of all-India character detailed information regarding—

- (i) existing agencies for social service in their areas, including universities;
- (ii) the scope of their activities;
- (iii) their relation to one another and the means adopted to co-ordinate their work.

and to submit it to the annual meetings of the Board.

14. *Item VII.*—In connection with the report of their Standing Committee on the views of the Provincial Governments, Local Administrations, State Governments and Universities in India, with regard to the recommendations made by the Central Advisory Board of Education at the last meeting on the question of the relation of the School Leaving Certificate Examination to the Matriculation Examination, the Board were informed that the Inter-University Board at their last meeting had appointed a Committee to consider this subject. The Board felt it desirable also to appoint a Committee and decided to suggest to the Inter-University Board that the two Committee should collaborate.*

The Board also wished the Committee to bear in mind the desirability of raising progressively the standard required for entrance to Universities particularly in connection with the three year degree course which some Universities have in contemplation.

The following were appointed as members of the Committee:—

W. H. F. Armstrong, Esq., M.A., F.C.S., I.E.S., Director of Public Instruction, Punjab.

Dr. P. N. Banerjen, M.A., D.Sc. (Lond.), Barrister-at-Law, M.L.A.
J. M. Bottomley, Esq., M.A., C.I.E., I.E.S., Director of Public
Instruction, Bengal.

The Hon'ble Sir Maurice Gwyer, K.C.B., K.C.S.I., Chief Justice
of India.

Dr. G. G. R. Hunter, M.A., D.Phil., F.R.A.I., I.E.S., Director of
Public Instruction, Central Provinces & Berar.

* This suggestion has since been agreed to by the Inter-University Board and a joint meeting has been arranged in Delhi at the end of March.

S. N. Moos, Esq., M.A. (Cantab.), I.E.S., Director of Public Instruction, Bombay.

J. C. Powell-Price, Esq., M.A., C.I.E., I.E.S., Director of Public Instruction, United Provinces.

Srimati Renuka Ray, B.Sc. (Econ.) Lond:

John Sargent, Esq., M.A., C.I.E., Educational Commissioner with the Government of India.

R. M. Statham, Esq., M.A., C.I.E., I.E.S., Director of Public Instruction, Madras.

15. *Item VIII.*—In view of the replies received from the authorities consulted the Board re-affirmed the recommendations made by them at the last meeting as to the adoption of a uniform system of nomenclature for the designation of teachers in universities and colleges, subject to the proviso that those relating to the transitional stage may be accepted as a permanent arrangement.

16. *Item IX.*—The views of the Provincial Governments, Local Administrations, State Governments and Universities in India with regard to the recommendation made by the Board at the last meeting that practical training in school hygiene should be given in training colleges and schools which were in all cases favourable, were recorded.

17. *Item X.*—The Board considered the resolution adopted by the Inter-University Board, India, with regard to the question of excising undesirable passages from text books prescribed for university studies and endorsed it subject to the deletion of the words "and erotic". The resolution as amended will now read—

"The Board strongly recommend that all obscene passages should be omitted from the text books prescribed for courses of study in all the subjects."

18. *Item XI.*—The reports from Provincial Governments, Local Administrations and State Governments with regard to the action taken on the recommendations made by the Board at their last meeting on the need for arranging specific instruction in schools on the subject of 'Kindness to animals' were recorded.

19. *Item XII.*—The Board considered the report of the School Buildings Committee appointed at their last meeting. The report will be found in Appendix II. The Board adopted the recommendations of the Committee and further decided that—

(i) The Educational Commissioner should be authorised to reproduce in book form the material contained in the report together with such further information including illustrations, plans, costings, and estimates as he may consider necessary.

(ii) The Educational Commissioner with the Government of India should be asked to prepare a detailed note on the question of financing substantial schemes of non-recurring educational expenditure out of loans, a general principle which has the Board's strong support.

(iii) The Educational Commissioner should be authorised to appoint an expert Committee to prescribe adequate standards for Indian schools in respect of lighting, heating and ventilation.

20. *Item XIII.*—The Board considered the report of the Committee appointed by them to examine the question of adopting a Uniform Braille Code in the schools for the blind in India. The report of the Committee will be found in Appendix III. The Board adopted the recommendations of the Committee and in pursuance of recommendation No. V, appointed an expert Committee with the following personnel:—

John Sargent, Esq., M.A., C.I.E., Educational Commissioner with the Government of India (Chairman).

Dr. Abdul Haq, B.Litt., Ph.D. (Oxon.), (formerly Head of the Department of Arabic, Osmania University), Secretary, All-India Anjuman-e-Taraqqi-e-Urdu, Delhi.

P. M. Advani, Esq., M.A., B.Sc., Principal, School for the Blind, Karachi.

K. D. Bhattacharjee, Esq., B.A., Principal, Lady Noyce School for the Deaf & Dumb, New Delhi.

Professor Suniti Kumar Chatterji, M.A., D.Litt., Head of the Department of Comparative Philology, Calcutta University.

21. *Item XIV.*—The Board had before them the report of the Committee appointed by their late Chairman at the request of the Central Advisory Boards of Health and Education to consider the steps to be taken to improve the physical condition of school children. The report of the Committee will be found in Appendix IV. The Board approved the recommendations of the Committee subject to the following modification in recommendation No. 55:—

"The fees to be charged for tuition in secondary schools in urban areas should include a contribution towards the cost of medical inspection and treatment."

and authorised Dr. Pann Lall, D.Litt.; C.I.E., I.C.S., Adviser to H. E. the Governor of the United Provinces, and the Educational Commissioner with the Government of India to communicate their views to the Central Advisory Board of Health at the meeting at Calcutta on January 26th, 27th and 28th, 1942.*

22. *Item XV.*—The Board considered a resolution on subject of Examinations submitted by Dr. Sir Zia-ud-Din Ahmad and Dr. P. N. Banerjea. The resolution proposed the setting up of a special Committee to enquire and consider whether it is feasible and desirable—

- (a) to reduce the number of examinations held by different bodies;
- (b) to make more subjects optional than they are at present;
- (c) to reduce the marks allotted to different subjects for the written;
- (d) to make the questions more precise and definite;
- (e) to make the system of marking scripts less mechanical; and

* The Central Advisory Board of Health agreed to the suggested modification.

(i) to take such other steps as may be likely to make the examinations less burdensome to the students and more conducive to the development of their mental faculties.

This Committee should be empowered to invite the opinions of the Governments in British India and the Indian States, as well as of the various bodies which hold examinations, e.g., the Universities, the Secondary Boards of Education and the Public Service Commissions, should have power to co-opt experts for particular purposes, and should submit their report to the Advisory Board of Education on or before the 20th November, 1942, so that the Board may be able to take into consideration this matter at their meeting to be held early in 1943.

The Board, while fully in agreement as to the necessity for a comprehensive enquiry into this important subject, were of opinion that it would not be practicable to complete it in the time prescribed in the resolution and decided with the concurrence of the movers that the first step would be to appoint a small Committee to define the precise scope of the enquiry to be undertaken. The following were appointed for this purpose:—

Dr. P. N. Banerjee, M.A., D.Sc., Barrister-at-Law, M.L.A.

The Hon'ble Sir Maurice Gwyer, K.C.B., K.C.S.I., Chief Justice of India.

Srimati Renuka Ray, B.Sc. (Econ.) Lond.

John Sargent, Esq., M.A., C.I.E., Educational Commissioner with the Government of India.

Dr. Sir Zia-ud-Din Ahmad, C.I.E., Ph.D., D.Sc., M.L.A., Vice-Chancellor, Aligarh Muslim University.

23. Item XVI.—The Board had before them the recommendation of the Standing Committee on the issues raised in a letter No. 7525/F., dated the 8th October 1941, from the Government of Bombay regarding the question of the introduction of Hindustani in primary and secondary schools. It was agreed that it was desirable to evolve a standard Hindustani, if possible, but at the same time it was pointed out that there is a form of Hindustani in common use over a large part of Northern India and that the Government of Bombay might find in this the solution of their difficulty.

The Board also gave directions that the Bureau of Education should collect such Hindustani literature as is now being used in primary and secondary schools in provinces other than Bombay and forward it to the Government of Bombay for their information and guidance.

24. Item XVII.—With regard to the issue raised in a letter No. 2206-Edn., dated the 8th November 1941, from the Government of Bengal regarding the need for financial assistance from the Central Government for primary education schemes in Bengal, the Board felt that the Government of Bengal should address their communication to the Government of India, since the attitude of the Board in this connection has already been defined (cf., Proceedings of the fifth meeting) and they have no executive powers.

25. Item XVIII.—The Board had under consideration the question raised by the Government of Assam with regard to the promotion of technical and industrial education in connection with the Universities and Colleges

in India. - While recognising the importance of the closest collaboration between the Department of Education and other Departments of Government concerned with industry and commerce as well as industrial and commercial interests the Board were strongly of opinion that if overlapping and waste are to be avoided, all types of Technical Education, using the word in its broadest sense, should in all provinces be under the direct control of the Department of Education. They based this opinion mainly on the ground that whatever other interests may be concerned both the primary objective and the technique required are essentially instructional. The Board regarded this matter as of particular importance in view of the industrial developments which may be anticipated after the war and of the contribution which Technical Institutions would be expected to make in this connection. Even in the case of war emergency measures like the Technical Training Scheme the Board would attach much importance to close consultation between the department immediately responsible for the scheme and the education authorities affected by it.

The Board also welcomed the recent formation of the Association of Principals of Technical Institutions, India, and expressed the hope that this body in co-operation with representatives of Industry and Commerce would not only indicate the lines which developments in technical education should follow but would also frame courses and syllabuses which might be generally adopted throughout the country.

The Board decided that the re-constituted Standing Committee should examine the issues raised by the Government of Assam in this connection and submit a report to the next meeting.

26. *Item XIX.*—The Board recommended that expenditure incurred by educational institutions in connection with the purchase of radio listening sets should be considered as approved expenditure by the educational authorities concerned.

27. *Item XX.*—The Board felt that since the success of any educational system must depend on the quality of the teachers, the question of the recruitment, training and conditions of service of teachers is a matter of fundamental importance, which calls for early investigation on an All-India basis. They decided to appoint the following as a special Committee for this purpose:—

Khan Sahib Khan Shah Alam Khan, M.A., LL.B., Director of Public Instruction, N. W. F. Province.

Rajkumari Amrit Kaur.

Dr. G. G. R. Hunter, M.A., D.Phil. (Oxon.), F.R.A.I., I.E.S., Director of Public Instruction, Central Provinces & Berar.

A. S. Khan, Esq., M.Sc., I.E.S., Director of Public Instruction, Bihar.

S. N. Moos, Esq., M.A. (Cantab.), I.E.S., Director of Public Instruction, Bombay.

Diwan Bahadur Sir K. Ramunni Menon, M.A. (Cantab.), LL.D. (Hon.).

Srimati Ranuka Ray, B.Sc. (Econ.) London.

John Sargent, Esq., M.A., G.I.E., Educational Commissioner with the Government of India.

R. M. Statham, Esq., M.A., C.I.E., I.E.S., Director of Public Instruction, Madras.
 P. F. S. Warren, Esq., B.A. (Cantab.), A.M.I.C.E., M.I.E. (Ind.), Director, Messrs. Jessop & Co., Calcutta.

28. Item XXI.—With regard to the recommendation from the Indian Public Schools Conference that scholarships tenable at their schools should be provided out of public funds to assist boys of outstanding ability who would not otherwise be in a position to seek admission thereto, the Board decided that the Conference should be asked to formulate a detailed scheme for giving effect to the idea which they have in mind and to submit it to the next meeting. The Board further agreed to invite a representative of the Conference to attend the next meeting when the scheme was under consideration.

29. Item XXII.—The Board considered a communication from the Youths Welfare Association, Lahore, and authorised the Educational Commissioner with the Government of India to communicate in general terms the contents of the letter to the Provincial Governments.

30. Item XXIII.—In considering the future functions and composition of the Standing Committees, the Board reiterated their previous decision that in future arrangements should be made for the meetings of the Board to be preceded by the meetings of the Standing Committees. To make this decision as effective as possible, it was considered desirable that the terms of reference of the Standing Committees should cover between them the main branches of educational activity which come within the purview of the Board. The Board agreed that there was an immediate need for four Standing Committees, though they saw no reason why this number should not be increased as circumstances may require. To enable future meetings to be held concurrently, it was thought that membership of the Standing Committees as far as possible should not overlap.

The following Standing Committees were set up:—

- (A) Primary Education Committee.
- (B) Secondary Education Committee.
- (C) Further Education Committee.
- (D) General Purposes Committee.

Committee (A) will deal with all matters affecting primary and pre-primary education, including 'basic' education. Committee (B) will deal with all matters affecting the middle and high school stages of education. Committee (C) will deal with matters affecting technical, commercial and art education and adult education generally. Committee (D) will deal with matters not covered by the terms of reference of the other Standing Committees.

The Board were agreed that Committees (A) and (B) would need to co-operate in regard to many questions affecting the transitional stage between primary and secondary education, while co-operation would similarly be required between Committees (B) and (C) in matters like Technical High Schools, examinations, the award of scholarships, etc. The Board also decided that resolutions, etc., from the Inter-University Board, India, in respect of matters concerning university education should be considered in the first instance by the General Purposes Committee.

The Board further prescribed that the term of office of a member of Standing Committee should be three years, unless he or she ceased to be a member of the Board in the meantime.

The Standing Committees mentioned above were then constituted with the following membership:—

(A) *Primary Education Committee.*

Khan Sahib Khan Shah Alam Khan, M.A., LL.B., Director of Public Instruction, N. W. F. Province.

Rajkumari Amrit Kaur.

W. H. F. Armstrong, Esq., M.A., F.C.S., I.E.S., Director of Public Instruction, Punjab.

A. S. Khan, Esq., M.Sc., I.E.S., Director of Public Instruction, Bihar.

S. N. Moos, Esq., M.A. (Cantab.), I.E.S., Director of Public Instruction, Bombay.

J. C. Powell-Price, Esq., M.A., C.I.E., I.E.S., Director of Public Instruction, United Provinces.

R. M. Statham, Esq., M.A., C.I.E., I.E.S., Director of Public Instruction, Madras.

S. C. Tripathi, Esq., M.A., I.E.S., Director of Public Instruction, Orissa.

(B) *Secondary Education Committee.*

Khan Bahadur Mian M. Afzal Hussain, M.Sc., M.A. (Cantab.), I.A.S., Vice-Chancellor, University of the Punjab.

J. M. Bottomley, Esq., M.A., C.I.E., I.E.S., Director of Public Instruction, Bengal

Shamsul-Ulema Dr. U. M. Daudpota, M.A., Ph.D., Director of Public Instruction, Sind.

Dr. Sir C. Ramalinga Reddy, M.A., (Cantab.), D.Litt., M.L.C., Vice-Chancellor, Andhra University.

Srimati Renuka Ray, B.Sc. (Econ.) London.

(C) *Further Education Committee.*

Rajkumari Amrit Kaur.

Dr. P. N. Banerjen, M.A., D.Sc. (Lond.), Barrister-at-Law, M.L.A.

Dr. Sir A. Fazlur Rahman, LL.D., B.A. (Oxon.).

The Hon'ble Diwan Bahadur Sir K. Ramunni Menon, M.A. (Cantab.), LL.D. (Hon'y.).

Srimati Renuka Ray, B.Sc. (Econ.) Lond.

Sir Shri Ram.

P. F. S. Warren, Esq., B.A. (Cantab.), A.M.I.C.E., M.I.E. (Ind.), Director, Messrs. Jessop & Co., Calcutta.

(D) *General Purposes Committee.*

The Right Rev. the Bishop of Lahore.

C. V. Chandrasekharan, Esq., M.A. (Oxon.), F.R.H.S., Pro-Vice-Chancellor, University of Travancore.

The Hon'ble Sir Maurice Gwyer, K.C.B., K.C.S.I., Chief Justice of India.

Dr. G. G. R. Hunter, M.A., D.Phil. (Oxon.), F.R.A.I., I.E.S., Director of Public Instruction, Central Provinces and Berar.

S. C. Roy, Esq., M.A. (Lond.), I.E.S., Director of Public Instruction, Assam.

Dr. Sir Zia-ud-Din Ahmad, Ph.D., D.Sc., C.I.E., M.L.A., Vice-Chancellor, Aligarh Muslim University.

The Chairman of the Board and the Educational Commissioner with the Government of India will be ex-officio members of all Standing Committees.

31. Item XXIV.—In accordance with the request made by the Bombay Government in their letter No. 7497/F., dated the 18th December 1941, for advice with regard to the experiment in 'basic' education in their province, the Board agreed to appoint a Committee consisting of the following members to examine the issues raised and to make any necessary suggestions to the Government of Bombay in regard to the future working of the experiment:—

A. S. Khan, Esq., M.Sc., I.E.S., Director of Public Instruction, Bihar.

J. C. Powell-Price, Esq., M.A., C.I.E., I.E.S., Director of Public Instruction, United Provinces.

Srimati Renuka Ray, B.Sc. (Econ.) Lond.

John Sargent, Esq., M.A., C.I.E., Educational Commissioner with the Government of India.

Dr. Zakir Husain, M.A., Ph.D., Principal, Jami Millia Islamia, Delhi

32. Item XXV.—The Board had under consideration a memorandum on the question of the recruitment of educational officers. The representatives of Provincial Governments present at the meeting were unanimous in expressing their concern at present tendencies in this connection and their appreciation of the need for a comprehensive survey of the position at an early date. The Board decided to appoint the following Committee to prepare a report:—

W. H. F. Armstrong, Esq., M.A., F.C.S., I.E.S., Director of Public Instruction, Punjab.

Dr. P. N. Banerjea, M.A., D.Sc., Barrister-at-Law, M.L.A.

The Right Rev. the Bishop of Lahore.

J. M. Bottomley, Esq., C.I.E., I.E.S., Director of Public Instruction, Bengal.

The Hon'ble Sir Maurice Gwyer, K.C.B., K.C.S.I. Chief Justice of India.

Dr. Panna Lall, D. Litt., C.I.E., I.C.S., Adviser to H. E. the Governor of the United Provinces.

John Sargent, Esq., M.A., C.I.E., Educational Commissioner with the Government of India.

R. M. Statham, Esq., C.I.E., I.E.S., Director of Public Instruction, Madras.

33. Item XXVI.—Subject to the concurrence of the Provincial Government, the Board decided to hold their next meeting in Lucknow in January 1943.

34. In conclusion the Board expressed their warm appreciation of the generous hospitality extended to them by H. E. H. the Nizam and his Government, and especially to ~~H.E.H.~~ the President of the Council and to the Minister in Charge of Finance and Education.

APPENDIX I (a) (i).

MEMORANDUM ON ITEM II OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Developments in Primary Education.

At its meeting held in December, 1938, the Central Advisory Board of Education, while noting with satisfaction the action taken by several provinces on the lines suggested in the Vernacular Education Committee's report, desired to be kept informed of further developments in regard to primary education. Reports received from Provincial Governments, etc., have consequently been submitted to the Board at its subsequent meetings.

2. At the last meeting held in January 1941, the Board felt that it would be materially assisted in discharging its function as a clearing house of information with regard to educational developments in the country as a whole if more detailed reports with regard to important matters like primary (including 'basic') and adult education could be obtained from the responsible authorities and if these reports could be examined and, where necessary, commented upon by the appropriate Standing Committees of the Board before submission to the Board itself. A request to assist in this way was accordingly addressed to the Provincial Governments, etc. The information received in respect of primary education is summarised below.

PROVINCIAL GOVERNMENTS.

Bihar.—The only development in the sphere of primary education has been the introduction by the Government of free and compulsory primary education for boys in the municipalities at the headquarters of the districts in the province. Compulsory primary education has been brought into operation in all these except Ranchi, the Patna Administration Committee, and the Chaibassa Municipality during the year 1939-40. In Ranchi, it was introduced years ago; the Patna Administration Committee introduced it during 1940-41 and the Chaibassa during 1941-42. Both on financial grounds and on account of insufficiency of women-teachers, it is not proposed at this stage to make education compulsory among girls in these areas, but they will be encouraged through the attendance officers to attend the pre-primary classes which will be run on co-educational lines. As a result, 10 per cent. of the girls of school-going age will attend the pre-primary schools. As the municipalities are not in a position to meet any substantial part of the cost involved it has been decided that the scheme should be financed mainly by Government but the municipalities will generally be required to meet a third of the total recurring expenditure on education from their own funds. The ultimate recurring and the non-recurring cost for 1939-40 amounted to Rs. 2,27,550 and Rs. 1,34,550 respectively.

With a view to keep down the cost, Government have decided not to give any grant towards the construction of buildings for the primary schools to be opened under the scheme but to accommodate these classes in cheap buildings to be rented for the purpose. The buildings to be rented should be such as to accommodate about 100 pupils under three teachers.

Central Provinces and Berar.—On account of the shortage of funds, it has not been possible to meet the growing demand for the expansion of primary education. 10 stipends from the Urdu Normal School for Men, Amraoti have been transferred to the Normal School for Women, Jubbulpore, for award to candidates knowing Urdu and the desirability of starting a separate Normal School for these women teachers is being considered. The question of re-assessing the grants is under consideration.

Madras.—Introduction of pre-vocational subjects in Higher Elementary Schools.—The syllabuses for elementary* schools were revised, one of the main features of the new syllabus being the teaching of a "handicraft" in lower elementary schools and of a "pre-vocational subject" in higher elementary schools. Thirty-four subjects have been included in the list of pre-vocational subjects and every higher elementary school is required to introduce one of these subjects. With a view to encouraging managements of local bodies' and aided schools to make adequate and suitable provision for the teaching of pre-vocational subject, the Provincial Government agreed to pay subsidy to these managements towards the employment of full-time instructors or part-time artisans and the purchase of initial equipment. During 1939-40, grants for pre-vocational instructors and a non-recurring grant for equipment were distributed separately. But from the year 1940-41, it is proposed to distribute the grant for pre-vocational instructors along with the normal teaching grant for elementary schools.

Development of incomplete schools.—In conformity with the policy of the Education Department that each school should have five standards (exception being made in the case of feeder schools with two or three standards which regularly pass on their pupils to the neighbouring complete schools), the number of complete elementary schools has considerably increased, i.e., from 25,535 to 30,451. The percentage of complete elementary schools to the total number of lower elementary schools has risen to 78·8 from 16·8 in 1935-36. There was also an improvement in the distribution of pupils in the several standards. The percentage of pupils in standard V in both boys' and girls' schools to the number in standard I is 25·1.

The Education of Girls.—With a view to improving the education of girls, instructions were issued to the effect that—

- (i) recognition shall not, in future, be granted to any lower elementary boys' school in an area where there is no girls' school, unless the strength of the girls in that school is at least equal to half of the total number of boys in the school; and
- (ii) recognition may be withdrawn, after due warning, from any boy's elementary school, in an area where there is no girls' school, in case 25 per cent. of the number of girls of school age in the local area are not reading in the school.

Action against Local Body Schools which do not come up to the Departmental efficiency test.—A large number of uneconomic, inefficient and incomplete schools have been eliminated. In regard to aided schools, rules have been framed to penalize managements which fail to develop

* Elementary here includes the primary and the middle stages.

their schools into complete ones and which fail to turn out a sufficient number of permanent literates. Local Bodies have been informed that the schools under their control should satisfy all the departmental requirements regarding completeness, distribution of pupils, standard war economic strength and the presence of girls in satisfactory numbers in areas where there are no 'girls' schools. Local bodies have been warned that recognition will be withdrawn from schools which do not, after a reasonable interval, come up to the required standard of efficiency.

Improvement of the quality of the teaching staff.—Rules for the recognition of elementary schools have been amended so that better qualified teachers, specially of the Secondary grade, may be employed in large numbers. It has been ruled that English should be taught by Secondary grade teachers only and that after 1st October 1939, the headmasters of lower elementary schools with four or more teachers employed should also be Secondary grade teachers. The rate of annual grant to Higher Elementary Grade Teacher has been raised from Rs. 144 to Rs. 168 and that for Secondary grade teacher from Rs. 200 to Rs. 216.

In order to secure a supply of competent teachers to handle the new syllabuses in elementary schools, the course of training for the Higher Elementary and Secondary grades has been completely reorganised. In addition, refresher courses are being conducted in most of the training schools for the benefit of the existing teachers.

The amended rules require the employment of Secondary grade teachers in elementary schools to a much greater extent. They have to be appointed as headmasters or headmistresses of large lower elementary schools. To satisfy the demand for Secondary grade teachers arising out of these changes the Secondary grade training course has been introduced in a number of training schools where till now provision existed only for the Higher Elementary grade training. The course of training even for the Secondary grade is now conducted in the mother tongue except in schools where special exemption has been granted by the Director of Public Instruction.

The institution of service registers for teachers in aided elementary schools is a definite advance towards improvement in the conditions of service of teachers. Under the existing rules, no manager can dispense with the services of a teacher and no teacher can leave a school without three months' notice on pain of a penalty for default.

Increase of grant-in-aid to Elementary Schools.—The aided elementary schools had a substantial increase in the allotment under teaching grants by over Rs. 18 lakhs. The increase, it may be noted, is unprecedented and it has practically banished the fear of large pro-rata cuts in grant.

Some of the managements of private elementary schools levy fees at varying rates and hitherto these were not taken into account in calculating the grant payable to the schools. Now, rules have been amended to take into account the fee income derived before recommending or sanctioning increased grants to schools.

Improvement of the finances of Local Bodies.—In most cases the expenditure of local bodies on elementary education was greater than their annual income from educational taxes. In spite of drastic retrenchments, it was found impossible to bridge the gap between the two. The only course open was to increase the income of these bodies. The Madras

Elementary Education Act has therefore been amended with a view to permitting the local bodies to enhance the education tax leivable by them without a corresponding increase in the Government contribution.

Improvement of Education in backward areas.—The schools in the backward areas (Agency tracts and Wynad taluk in Malabar district) have been accorded a fairly liberal treatment in that the grants will be assessed for teachers in these areas at 50 per cent. more than the normal rates. The normal allotment of teaching grant for schools in the agency has also been slightly increased.

Government have recently approved the proposal to award scholarships to Badaga and hill-tribe girls of the Nilgiris district reading in Standards IV and V. The value of the scholarship will be Re. 1 per pupil per month. This step has been taken in order to increase the number of literate girls among these backward classes.

New E. S. L. C. Examination.—The old Elementary School Leaving Certificate Examination which marked the end of the Higher Elementary course was conducted by Deputy Inspectors of Schools and Sub-Assistant Inspectresses. As this was not a satisfactorily test, a common public examination for the issue of Elementary School Leaving Certificate of the VIII Standard has been instituted and instructions have also been issued to see that preference is given, in admissions to training schools of the Higher Elementary grade, to holders of these certificates.

Text Book Committee.—A separate Text Book Committee for Elementary Schools has been constituted and separate approval is now accorded for books to be used in elementary schools.

North-West Frontier Province.—During the year 1940-41, there was a further expansion of free and compulsory primary education within the municipal limits of Peshawar city. Eight new primary Schools were opened during the year. The Government paid a grant of Rs. 24,000 to the Municipal Committee which spent it on the new schools opened during the last two years. The only regret is that the Committee has not so far taken any action to enforce the compulsory sections of the Act.

Orissa.—There has been no notable development in the progress of primary education.

Punjab.—With regard to the development of primary education, the Provincial Government have nothing to communicate at this stage.

United Provinces.—[Primary education continues to be administered by local bodies, by Municipal Boards where there are such, and elsewhere by District Boards and their education committees. The Deputy Inspector of schools, the Chief educational officer of a district, is *ex-officio* Secretary of the Education Committee. His importance in the scheme of education was recognized by the conferment of Gazzeted rank during the course of the year. Much has been written for and against administration by local bodies of primary education. It is often wasteful and always slow and clumsy in working but it is believed that the opinion of the taxpayers is reflected in this system. In most cases the taxpayers know little about it and understand less. When education is more widely spread the system will probably work better but it is on the whole not suited to present conditions.

Number of schools and enrolment.—The following table shows the number of schools of different kinds and their enrolment.—

Kind of institution.	Number of Schools.		Variation.	Number of Scholars.		Variation-
	1939-40	1940-41		1939-40	1940-41	
Government .	16	27	+11	1,318	1,527	+209
District Board .	12,706	12,475	-231	9,70,376	9,71,243	+867
Municipal Board .	838	835	-3	1,11,677	1,11,762	+85
Aided . . .	4,855	4,747	-108	1,97,980	1,94,704	-3,276
Unaided . . .	200	160	—	8,068	8,321	+353
TOTAL.	18,615	18,244	-371	12,90,319	12,88,557	-1,762

The above figures show that while 371 schools as a whole were closed the enrolment decreased by only 1,762 or a little less than five scholars per school. The process of closing uneconomical District Board Schools and schools aided by District Boards continues, but the fact that the enrolment has now begun to decrease seems to show that this process cannot be continued much further.

The total number of girls reading in boys' primary schools has declined over the whole province from 94,090 in 1939-40 to 93,081 in the year under report, which is a setback to the cause of co-education. The decrease is not general for the Inspector of Fyzabad reports further gratifying increase in his circle.

The expenditure on primary education from various heads is shown in the following table.—

Heads.	1939-40	1940-41	Variation.
Provincial revenue . . .	57,82,760	58,01,905	+10,196
District Board funds . . .	19,44,636	19,31,405	-13,231
Municipal Board funds . . .	7,56,960	7,69,546	12,586
Fees	3,58,007	3,68,667	10,660
Other sources	2,10,321	1,94,612	-16,709
TOTAL.	90,52,693	90,66,195	+13,502

There has been only a nominal increase of Rs. 13,502 in the total expenditure on primary education compared to the expenditure in 1939-40. The average cost per head of educating 1,288,557 boys was Rs. 7-0-7. Last year the cost was Rs. 7-0-3 per boy.

The condition of the tuition in the average primary school is still reported to be very unsatisfactory, though the Inspectors of both Benares and Bareilly report that some of the teachers are picking up ideas from their colleagues who have been trained in Basic methods. It remains true, however, that most of the teaching on the old lines is superficial and unproductive.

There has been no improvement in the condition of buildings. There has, in fact, been a further deterioration as the complaint is general that even ordinary annual repairs are not undertaken. A large number of schools are without any building of any sort. There are 180 such schools in Ballia, 82 in Bahraich and 84 in Basti. Few Boards have yet taken advantage of the experimental buildings constructed in the Basic College, Allahabad, but it is likely that this will spread when their utility is better known.

Where the buildings are so poor it is only to be expected that the equipment should be most inadequate and all reports show that this is the case.

Teachers in District Board schools receive scales of salary laid down by the Government, but there are still complaints from some districts of late payment. In Municipal Boards there is no scale laid down, but the majority give much the same scales as District Boards. The condition of teachers in aided schools is very poor. In the majority of cases they get merely the amount of aid given by the District Board, which may be as low as Rs. 6 per month. Sometimes they are forced to share this small sum, *sub rosa*, with the Manager.

Compulsory primary education is in force for boys between the ages of 6 and 11 years in the same 1,224 villages, town areas and notified areas, and 36 municipalities as it was last year. There has been no change in the scheme, though throughout the whole year the examination of the problem, begun in February 1940, was continued by the Deputy Director of Public Instruction.

There is no doubt that the scheme is in need of revision in many instances, though there are others where progress has been fairly satisfactory and little revision is necessary. In municipal areas the number of boys liable to compulsion is 90,789 of whom 72,067 or 79·4 per cent. were actually enrolled. The percentage of attendance was 77·8, and that of literacy, which is calculated as percentage of boys now reading in class III who were reading in the infant class four years ago, is 26·8. In areas administered by District Boards 54,175 boys were liable to compulsion of whom 48,450 or 89·4 per cent. were actually enrolled with a percentage attendance of 78·01 and a literacy percentage of 15·7.

Reports are general that the scheme is working more satisfactorily in urban areas than in rural, because, as one Inspector puts it, dwellers in towns are more education-conscious than those in villages. There are some exceptions, in Naini Tal only 70 per cent. of the boys liable are enrolled, and in Agra, Hapur and Bijnor the percentages of boys enrolled are 51·2, 57·1 and 52·5, respectively. Even in municipalities the efficiency of the scheme, on the whole leaves much to be desired and in rural areas the position is worse. Many of the areas under District Boards are experimental and were never meant to continue and it is here that revision is most necessary by closing some areas and consolidating

elsewhere. This is being examined. Compulsory education is also in-force for girls in selected wards of Cawnpore, Mirzapur and Meerut Municipalities and in selected areas of Etawah and Lucknow districts. There has been no change in this scheme during the year, but a proposal to introduce compulsion for girls in parts of Partabgarh district is under consideration.

Attention continues to be paid to these and the progress continues to be satisfactory, though the majority of schools are handicapped by lack of space for games. Still they find room for the indigenous games, and the Inspector of Bareilly says that many schools prepare their own *akhara* and indulge in wrestling. Physical Training has made remarkable progress and all primary schools practise it and many are very good indeed. The competitions held by many districts show a high standard of physical exercise with a corresponding increase in smartness and neatness.

Scouting and extra-curricular activities.—Scouting continues to be popular and almost every school has its troop of scouts or cubs. There is still too much emphasis upon the spectacular side, according to some reports, and too little in the training for service and citizenship which scouting provides. Most schools have some form of extra-curricular activity, which generally take the form of some sort of craft. Such work has undoubtedly been stimulated by the introduction of Basic education. Junior Red Cross work also continues to progress.

Rural development.—It is generally agreed that the village school is, and must be, the centre of all rural development work. Reports show, unfortunately, that many of the village school teachers do not realise their responsibility. In three selected areas of Lucknow, Gorakhpur and Moradabad special attention has been paid to this work by the Department since 1935 and honoraria and rewards are paid to teachers specially trained who do good work. Here the position is better and it is reported that useful work is being done, and there is an improvement in the social and moral condition of the villages. The scheme costs the Government Rs. 6,900 per annum.]

LOCAL ADMINISTRATIONS.

Ajmer-Merwara.—With the introduction of a three-year expansion programme during the year 1939-40, 34 single-teacher schools have been converted into two-teacher schools and a similar number will be converted in each of the following years. This will no doubt improve the general standard of the children now at school but the stage is being reached when compulsion will be necessary if the number in attendance is to be substantially increased.

Primary education for girls has made steady progress during recent years. During the year 1940-41, a Government Training School for Women with a practising school attached was opened in Ajmer. Ten stipends are awarded each year to trainees.

In rural areas, six buildings of approved type for girls' primary schools with spacious playgrounds were constructed during 1940-41. Two primary schools were raised to the Secondary standard, and a trained matriculate appointed as headmistress in each of these schools. Almost

all the single-teacher primary schools have been converted into two-teacher schools. It is expected that with these improved facilities more girls will now be attracted to these schools.

Delhi.—The scheme for the reorganisation of education in the rural area which was drawn up last year has been held up for the present because of the heavy cost involved.

The scheme for the reorganisation of secondary education now under consideration will, if approved, affect primary education to the extent that the primary stage will extend over 5 years instead of 4.

STATE GOVERNMENTS.

Hyderabad.—During 1939-40, H. E. H. the Nizam's Government sanctioned a five-year programme for the expansion and improvement of primary education and the construction of buildings for primary schools. It was also decided that in future primary education should be controlled entirely by the State and not by local bodies, and that the latter should confine themselves to finding from Local Funds the cost of buildings and equipment for primary schools in the villages. The burden of recurring expenditure on primary education should be borne by the State.

On sanctioning the above-mentioned scheme, Government provided an additional grant of Rs. 7½ lakhs rising by one lakh annually to Rs. 12½ lakhs during the succeeding five years, in order to enable the Education Department to convert the existing Local Fund Schools into Government Schools, to provide all villages with a population of 1,000 and above with schools and to increase the salaries of teachers, the minimum fixed for an Assistant Master of a village primary school being Rs. 18, and for a Headmaster Rs. 25 a month.

At the same time, for the provision of buildings, the Local Self-Government Department has made a special grant of Rs. 20 lakhs from the Education and General Balances, at the rate of Rs. 4 lakhs annually, in addition to the annual Local Fund Education Grant of Rs. 4½ lakhs.

Three standard plans for primary school buildings (for large, medium sized and small schools, the latter type of building costing a little over Rs. 1,000 only) have been approved.

An interesting feature of the new scheme is that it contemplates the creation of school committees for all primary schools comprising leading local residents whose function will be to encourage the attendance of pupils at school and to bring the requirements of the school to the notice of the inspecting staff.

Mysore.—[The control of Primary Education, which was vested with the Local Education authorities was resumed by Government with effect from 1st July 1941.]

Travancore.—There are no new important developments to be mentioned.

[] Information not received in time for placing before the meeting of the Board.

APPENDIX I (a) (ii).

MEMORANDUM ON ITEM II OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Progress in 'Basic Education'.

The Second Wardha Education Committee of the Central Advisory Board of Education had recommended *inter alia* that a standing committee of the Central Advisory Board of Education should be appointed to watch new educational experiments carried on in the provinces as well as the progress of educational developments generally, with special reference to 'Basic' education and to make recommendations to the Board for necessary action. The Central Advisory Board to whom the report of the Committee was submitted at its meeting held in May 1940, decided that to implement this recommendation it would be better to strengthen its existing Vernacular Education Committee than to set up a special Committee. Accordingly the Committee was reconstituted to watch the progress of 'Basic' education in the country.

2. At its last meeting held in January 1941, the Board felt that it would be materially assisted in discharging its function as a clearing house of information with regard to educational developments in the country as a whole if more detailed reports with regard to important matters like 'basic' or adult education could be obtained from the responsible authorities and if these reports could be examined and, where necessary commented upon by the appropriate Standing Committees of the Board before submission to the Board itself. The Provincial Governments, Local Administrations, and State Governments were asked to furnish such reports. The replies received from them about 'basic' education have been summarised below.

PROVINCIAL GOVERNMENTS.

Assam.—[The Provincial Government did not see their way to introduce Basic Education even as an experimental measure. A report on Basic Education prepared by the Director of Public Instruction after visiting various centres of Basic Education in India, is under consideration of Government.]

Bengal.—The Provincial Government estimate that the minimum cost of the 'basic' education scheme will be Rs. 2 per head of population. As the census will probably show a population in Bengal of 6 crores, the province would be involved in expenditure of Rs. 12 crores if it adopted the Wardha Scheme or any other efficient scheme for children from 6 to 14, i.e., an eight-year course.

The Provincial Government agree with the Second Wardha Education Committee of the Board that the Central Government should bear half the cost of approved net expenditure upon primary education and consider that this is the first matter that should be decided by the Central Government. Without such a subvention efficient primary education covering a school life of eight years is, in the opinion of the Provincial Government, impossible.

If such a subvention is granted the Provincial Government suggest that each province should develop its own schemes upon approved lines. It

[Information received after the meeting of the Board.

is considered that the approved schemes might well be different, even radically different, in different areas so that, from the shared experiences of different provinces, satisfactory schemes might be ensured. The Provincial Government consider that there is not at present sufficient evidence of the practicabilities and value of the Wardha Scheme to justify its adoption within the province.

Bihar.—In June 1938, an experiment in basic education was started by the deputation of two officers to Wardha for a short course of training with a view to their organising on their return courses for the training of teachers under the basic scheme. In September 1938, sixty prospective basic school teachers were admitted to the Patna Training School to undergo a course of training under these officers. In December 1938, the Provincial Government appointed a Basic Education Board to organise a system of basic education in the province. In February 1939, a scheme for the establishment of fifty experimental basic schools in the compact area round Brindaban was sanctioned, each commencing with grade I in 1939 and adding a higher grade in subsequent years until in 1945 all will become full fledged basic schools of seven grades. A scheme for the gradual conversion of the few existing primary schools and one middle school in the "compact area" to basic schools was sanctioned.

With effect from April 1939, 35 out of the 50 schools sanctioned started with grade I. The year 1940-41 was devoted to the further intensification and consolidation of the programme of the experiment both in respect of the training of teachers and the running of the basic schools.

The important events in the field of basic education during the year 1940-41 are given below:—

- (1) The introduction of cardboard work into the Basic Training School as a preliminary to the introduction in due course of the complete crafts of cardboard, wood and metal work.
- (2) The introduction into the Basic Training School of weaving as a part of the craft of spinning and weaving.
- (3) The completion of the second emergency course of preliminary training in the Basic Training School and the institution of a third one year's course of preliminary training from January 1941.
- (4) An assessment of the progress of the experiment in both the basic training school and the basic schools by representative Boards of Inspectors.
- (5) The starting of grade II in the basic schools in "compact area" since May, 1940.
- (6) A course of a year's retraining for half the number of the basic school teachers trained in the first emergency course.
- (7) A course of training for the teachers of the schools of the old type in the "compact area" since converted or being converted into basic schools.
- (8) Sanction by Government of courses of studies for the preliminary and final courses of training each of one year and the reorganisation of the work of the Basic Training School in the light thereof.
- (9) The establishment of direct contact between the specialist staff of the basic training school and the supervisors and teachers of basic schools.

(10) The preparation of literature for the basic schools and the basic training school.

(11) The reorganisation of the staff of the Practising School attached to the Basic Training School on lines of Basic Education with the number of school days in a year brought in line with that of the Basic Schools in the "compact area".

Expenditure.—The experiment is financed by the Provincial Government. The total expenditure amounted to Rs. 1,11,854 during 1940-41.

Basic Training School at Patna—Since April 1940, this institution has been working as a purely basic training school.

Basic crafts.—The basic crafts practised during the year were (i) spinning and weaving, (ii) gardening and agriculture, and (iii) card-board work as a preliminary to the introduction of the complete craft of card-board, wood and metal work. Of these weaving was introduced only during the close of the year 1940-41. The work done in this direction by the pupil teachers is reported to be quite satisfactory.

Literature Work.—The Basic Education Board has set up a Standing Committee called the Basic Literature Committee, to undertake the work of preparing literature for the students of basic schools during 1940-41. A book for grade III with suitable illustrations has already been approved by the Board and will be published shortly. Another book for grade II is nearing completion. The procedure adopted in preparing the literature is to collect

- (1) selected samples of reading material prepared and used at the various basic grades,
- (2) records of activities followed, observations made, matters studied, services rendered, and incidents occurring at these schools, and
- (3) facts and figures relating to village life, population, occupations, rites and rituals, fairs and festivals, etc., and then to classify them, and to edit them in the form of reading lessons.

Schools and Enrolment.—The number of basic schools in the "compact area" continued to stand at 27 with 2,024 scholars (1,859 boys and 185 girls) on roll on the 31st March 1941.

Buildings and equipment.—The Basic Board also made experiments in constructing basic school houses. The first type constructed was the cheapest type with long grass and bamboo wattle walls with thatched roofs supported on bamboo and timber uprights. A class room with a 600 square feet floor space, a store room with 800 square feet floor space and a teachers' house with a small bed room and a kitchen and enclosed yard attached were all constructed at a total cost of Rs. 250. The annual recurring cost on repairs amounted to Rs. 45 approximately. These buildings are, however, reported to be unsuitable.

Basic Syllabus in practice.—The year 1940-41 has not recorded any increase in the time devoted to the basic craft. It appears however that with the growing control of the teachers on the technique of craft-practice and correlated teaching, the time devoted per day to the basic craft will go on gradually rising.

The sale proceeds of the slivers made and yarn spun by the pupils in the basic schools was Rs. 2,112-3-0 and the value of the pupils' produce,

in stock at the time, was Rs. 268.3.0. Deducting the expenditure, the pupils' net earnings were Rs. 1,280.18.0.

NET RESULT OF THE YEAR'S WORKING.

Inspectors' report.—On a review of the working of the schools during the year the Provincial Government feel that although there are defects, still present and considerable improvement is needed in various directions. It is also the experiment is, on the whole, proceeding on the right lines. It is also giving encouraging results. The standard of achievement both by the teachers and the pupils noticed last year has been well maintained and, in a fair number of cases, improved upon. The proficiency in craft work has improved considerably and correlation of other subjects is also being done better. With regard to the latter there is need of caution lest more may be attempted than what is obvious and natural. The greater danger, however, is that all the three centres of education emphasised in the scheme—namely, craft activity and physical and social environments, may not be fully explained for the purpose of educating the child. Of this there was palpable evidence, for although the children had become fairly acquainted with their natural surroundings, not much seems to have been attempted by way of stimulating their interest in their study and thorough enquiry and otherwise to make necessary and useful knowledge available to them. Low attendance is a serious problem. Children continue to be irregular.

Bombay.—In 1939, the provincial Government sanctioned a scheme to open about 100 basic schools—60 in four compact areas on a linguistic basis and 40 in isolated places. The Government also appointed an Advisory Committee to advise Government in all matters relating to the scheme and to help to co-ordinate the work of basic education in the province. The 'basic' education syllabus was actually introduced in selected schools in June 1939 and has been tried on an experimental basis for the last two years.

Schools in compact areas.—During 1940-41 there were 58 Basic schools in four compact areas with 3,409 children under instruction. As under the scheme the experiment is to be extended to a higher standard every year the number of children under instruction goes on increasing year by year.

The teachers working in these schools are all trained at special training institutions established for the purpose. There are 123 such teachers working in the "compact area" schools at present.

Each "compact area" is under the supervision of a Basic Supervisor and Craft Supervisors. They visit the schools, guide the teachers in their work by demonstration lessons and generally co-ordinate the work done in the several schools in the area.

Isolated Schools.—There were 23 isolated schools under the experiment with a total of 2,050 children. As in the "compact areas", these schools also have specially trained teachers but they suffer from lack of efficient supervision and guidance. The schools, as their name indicates, are scattered all over the province and effective supervision with a very limited staff of supervisors is not possible. The results of the last two years in the case of these schools were discouraging and it was decided by Government, on the recommendation of the Advisory Committee, to close these schools with effect from June 1941, except the school run by the

District Local Board, Kaira, at Thamna, and two schools run by the Tilak Maharashtra Vidyapith, Poona.

Curriculum.—The curriculum adopted for the Basic schools is a special course drafted by the Advisory Committee. The syllabus includes spinning and carding as the Basic Craft, Nature Study, Mother-Tongue, Arithmetic, Social Studies, General Science and Drawing. The time devoted to actual Craft work—spinning and carding—was 3 hours and 20 minutes originally but subsequently it had to be reduced to 2 hours.

In regard to actual work, Craft work on the whole is reported to be satisfactory and the teachers have been able to correlate the teaching of Arithmetic and the Mother-Tongue with Craft work to some extent. Work in General Science and Nature Study, however, is confined in a majority of cases to mere observation. As the syllabus is not well defined, particularly in regard to Social Studies, and as no special books are available for the use of the pupils or the teachers, the progress made on the whole in subjects other than Craft work has been reported to be not entirely satisfactory.

Training of Teachers.—The training of teachers for the Basic Schools was specially undertaken by Government at three Training Centres on a linguistic basis. These institutions are run from provincial funds and no fees are charged. The teachers are paid their full pay or stipends while under training. A special syllabus framed by the Advisory Committee is followed. Each Training Institution has a Practising School attached to it. Provision for the training of over a hundred teachers exists in these institutions.

General Remarks.—The experience of the last two years has gone to show that the scheme of Basic Education is not working very satisfactorily and the existing schools have not proved an unqualified success. In some areas the local people are not particularly interested in the craft that has been introduced, for instance in the Khandala area, which is not a cotton-growing tract, craft education based on spinning and carding cannot be regarded as related to the environment and needs of the local people. In some areas also in view of the attitude of the Muslim community towards the scheme some of the Urdu schools had to be closed.

From the educational point of view, the main difficulty felt is in regard to the courses laid down. The courses are ambitious and few teachers, on account of their limited background, are able to handle intelligently the prescribed syllabus. Although a certain amount of work has been laid down for Social Studies, Agriculture (Nature-study and Gardening) and Science, nothing of any value is being attempted. Unfortunately no text-books are available even for teachers, and most of the work is left to the teacher to carry on as best as he can, with the result that all the lessons given suffer from lack of variety. From the economic point of view also, these schools are proving far more expensive than ordinary schools and it has been found increasingly difficult to make use of or dispose of the yarn produced.

The Local Advisory Committee fully appreciate the difficulties.

Central Provinces and Berar.—Experimental work relating to the problems of 'basic' education, such as (a) craft work and the fatigue point, (b) the application of the principle of correction, and (c) the economic aspect of the craft work, was carried on in the Practising School, attached to the Basic Normal School, Wardha. In thirty primary schools

in stock at the time, was Rs. 269.3.0. Deducting the expenditure, the pupils' net earnings were Rs. 1,286.18.9.

NET RESULT OF THE YEAR'S WORKING.

Inspectors' report.—On a review of the working of the schools during the year the Provincial Government feel that although there are defects still present and considerable improvement is needed in various directions, the experiment is, on the whole proceeding on the right lines. It is also giving encouraging results. The standard of achievement both by the teachers and the pupils noticed last year has been well maintained and, in a fair number of cases, improved upon. The proficiency in craft work has improved considerably and correlation of other subjects is also being done better. With regard to the latter there is need of caution lest more may be attempted than what is obvious and natural. The greater danger, however, is that all the three centres of education emphasised in the scheme—namely, craft activity and physical and social environments, may not be fully explained for the purpose of educating the child. Of this there was palpable evidence, for although the children had become fairly acquainted with their natural surroundings, not much seems to have been attempted by way of stimulating their interest in their study and thorough enquiry and otherwise to make necessary and useful knowledge available to them. Low attendance is a serious problem. Children continue to be irregular.

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which have been adopted by Government, the 'basic' syllabus has been introduced as an experimental measure. Some difficulty is being experienced in disposing of the yarn produced by the pupils at Wardha.

Madras.—'Basic' education has not been adopted in the Presidency.

North-West Frontier Province.—On the return of the teachers trained in the 'basic' system of education at New Delhi, the 'basic' scheme was introduced experimentally in two primary schools in the Peshawar District in August 1910. Reports show that the new venture is progressing on proper lines and the prospects seem bright. In one of the schools, efforts were made to make the scheme self-supporting as a result of the proceeds derived from the sale of vegetables, card board and paper colouring work.

Orissa.—In 1938, the Provincial Government decided to experiment in the system of 'basic' education. A Board of 'Basic' Education was constituted in October 1938, so that it might advise the Government on the introduction of the scheme in the province. In June 1939, a training school for teachers for the proposed 'Basic' schools was started and 15 such schools were opened in February 1940.

As the scheme was introduced as an experimental measure it was sanctioned temporarily for a period of one year only. After one year, the Provincial Government examined the progress of the experiment in the light of the report of their Director of Public Instruction and decided that it was not in the interest of the province to continue it further. The scheme has accordingly been abandoned: the reasons for this decision are given below:—

Although the idea behind the scheme is that teaching, instead of relying on text-books, should be correlated to the exercise of some craft chosen out of a number of different crafts likely to bring about the all-round development of the children, only one craft, i.e., spinning, has actually been adopted in the Basic schools at Bari, and Government are advised that no other useful craft can be substituted or added owing to the lack of teachers capable of giving instruction through such crafts. The Wardha scheme provides for 3 hours and 20 minutes of every school day of $5\frac{1}{2}$ hours to be spent in the practice of crafts, and there is an obvious likelihood that with no alternative craft to spinning these schools will quickly degenerate into mere spinning schools. Spinning is a sedentary and monotonous occupation and not at all calculated to lead to the all-round development of children in Orissa, where a more stimulating medium of instruction is obviously required. Moreover, as no craft other than spinning can be introduced, this experiment cannot ever be given the best chance of success in the province.

These Basic schools are far more expensive than the ordinary primary schools, and it would be quite impossible for the province to introduce them on a large scale unless they proved to be self-supporting. In this respect also the experiment has not shown any signs of success. The actual receipts of the Basic Schools in Orissa are reported to have amounted to 8 annas per head against an estimate of Rs. 8-9-0 a head for the first year in the original scheme.

The cost of continuing the existing 15 schools together with the training school for a further period of three years would be approximately Rs. 1½ lakhs, and if the experiment were continued on a seven years' basis, i.e., for the whole course, the cost would be very much greater. In the financial circumstances of the province such a heavy expenditure is not justified merely in order to test the merits of the scheme. It is understood that the Government of Madras during the Congress regime decided against the introduction of the system, preferring a revised system of elementary education which is believed to be fundamentally the same as the primary school system already in force in Orissa. The experiment is, however, being carried out in some other provinces and from the results so obtained it will be possible to ascertain the value and practicability of the system without incurring the heavy expenditure required to try it out thoroughly in Orissa.

The Provincial Government therefore decided to close the Basic schools and Training school with effect from the 1st March 1941. Attempts will be made to absorb the teachers trained in these schools into the ordinary schools of the province so far as possible.

Punjab.—The province has not adopted the 'basic' education scheme.

United Provinces—In order to introduce Art and Crafts in Anglo-Vernacular schools 2 refresher courses were run at the Basic Training College, Allahabad for the training of Drawing Masters and Manual Training Instructors of all the Anglo-Vernacular High Schools and Intermediate Colleges run by Government. The syllabus of Arts and Crafts was already drawn up and this syllabus is being introduced by these Drawing Masters in Classes III and IV from July 1941.

From July 1941 Drawing Masters and Manual Training Instructors of all the Aided High Schools and Intermediate Colleges are being brought to the College for these courses of 1½ months and by 1st May 1942 all these teachers will have received training in Art, book crafts, paper making, elementary metal work, elementary spinning and weaving and will be equipped to introduce art and crafts in Anglo-Vernacular schools.

The Sub-Deputy Inspectors of Schools continue to receive training in 'basic' principles and crafts in batches of 48 for a period of 3 months. By the month of March 1942 all the Sub-Deputy Inspectors of Schools of the province will have received training and thus will be equipped for supervision of Basic Schools.

Government have created 58 new posts of Sub-Deputy Inspectors of Schools to which Basic trained graduates have been appointed, who are expected to stimulate and supervise Basic education in the districts.

The question of introducing the 'basic' scheme in Normal schools has also been taken up. The Syllabus is being brought in line with that of the Basic scheme and the staff of Normal Schools is being specially trained. New 'basic' trained graduates will replace the graduate staff and the undergraduate staff is being trained at the College. The 24 best C. T.'s in the department have been selected to undergo a course of 3 months at the College, and will ultimately replace the undergraduate

staff of 8 Boys' Normal Schools. The Model Schools attached to Normal Schools are being already run on 'basic' lines.

In July 1941, 48 graduates (31 men and 12 women) were admitted to the Basic Training College in order to help in the experiment and to stimulate the work of training. These will receive a training of 1 year.

Arrangements have been made for the introduction of Basic Education in Girls' Schools as well. Since July 1941 six girls' centres (refreshers) have been started at 6 girls' Normal Schools. The teaching staff consists of the women graduates and undergraduates trained at the Basic Training College. Here women teachers of girls schools are brought for 3 months training. The first course has ended and the teachers on going back to their schools will give 'basic' instruction to infants and class I.

By the year 1944 all the women teachers will have received training.

For Girls' Normal Schools, etc., too, arrangements have been made. Women teachers at these schools are being brought to the Basic Training College for 2 months. By March 1942 all the staff of Girls' Normal Schools will have received training and from July 1942 training on Basic lines will be started in all Girls' Normal Schools.

The laboratory work at the Basic Training College is continued. New crafts are being added. Advanced book crafts, Metal work, weaving and cane work have been introduced and the technique of teaching these crafts is also being evolved.

The work of the production of material for Basic Schools is being carried on with great vigour. An illustrated arithmetic for class I has already been published by the Department of Public Instruction. Books on language are already in the press. Material is being prepared in the form of pamphlets containing suggestions for teachers, which will also serve as a source book giving details of the syllabus of various subjects as prescribed for 'basic' schools. These are supplied free to each school by the Department of Public Instruction. The first book on Book Crafts has been supplied. Others are in the press and will be ready shortly.

[Basic education entered upon its second year of work in the various schools which were converted into Basic schools in 1939-40. There was no change in the number of basic schools about 4,800 in all except that one or two schools were converted by municipalities which had not previously fallen in with the scheme. Basic classes have already been opened upto class III in these schools and it is proposed to introduce Basic education in class IV of these schools from July 1942. Teachers continued to receive three months refresher courses in the new ideals and methods of teaching at the Refresher Centres established last year at the headquarters of the different circles. Three batches, each containing thirty or more teachers from each district, returned from the refresher courses during the year, in the months of April, September and December, and with their aid teaching was started on Basic lines in classes II and infants, where it had previously been introduced in class I. One Sub-Deputy Inspector of Schools in each district had been trained in the Basic College, while two others received training during the year, and the work of supervising and inspecting the Basic Schools was entrusted to them. In most districts he was assisted by the two teachers who had been deputed to the Basic College in 1938-39 and had worked as Crafts Instructors in

the Refresher Centres during 1939-40, though some districts were slow to appoint these teachers to this work, and the number available was reduced during the course of the year as such teachers were deputed to Government Model Schools and Government Central Training Schools when places were vacant for them.

Actual reports about the success of the scheme are not all satisfactory because only infants classes upto class II were converted and the whole picture could not be shown. There are no two opinions that where the teachers are efficient and District Boards supply the necessary funds the change in method and spirit has caused an immense improvement. In such cases the schools are places where the atmosphere is free and cheerful, the boys enjoy their work and their progress is fully satisfactory and their attendance more regular. Not all the teachers trained have absorbed the spirit and ideals of Basic education, and it is too much to expect this from a short course of three months. Some have shown a tendency to revert to old methods and there is a danger of the scheme degenerating into mere handwork auxiliary to the main teaching in such cases. The Inspector of Benares reports that some District Boards are not co-operating now, and the complaint comes from almost all circles that some Boards are not providing the necessary funds for contingencies. In spite of these failings, which are in the material with which the scheme has got to be worked and not in the scheme itself there is no doubt that Basic Education has come to stay and offers the only hope for any improvement in the standard of primary education. Progress during the following year when class III has been included and more Sub-Deputy Inspectors have been through the training course has however established the usefulness of the system which indeed has succeeded beyond all expectations.]

LOCAL ADMINISTRATIONS.

Ajmer-Merwara.—The 'basic' education system has not so far been introduced in any form. Hand-work, however, is done in some schools as an extra curricular activity. Vocational training in Cottage industries is also given in some district schools. Recently, regular instruction in carpentry and agriculture has been started at some centres.

Delhi.—In 1940-41, a District Board 'basic' school was opened at Okhla which is doing satisfactory work under the direct supervision of Dr. Zakir Husain. Two of the teachers were deputed for training at the Basic Training School, Okhla.

STATE GOVERNMENT.

Baroda.—'Basic' schools have not been started in the State.

Cochin.—The 'basic' scheme has not yet been tried in the State.

Hyderabad.—The 'basic' scheme has not been introduced in the State. A revised curriculum which lays special stress on craft-work has been introduced in primary schools, but no attempt is made at any kind of vocational or pre-vocational education in the primary stage. The primary course covers a period of 4 years but an additional class (V) is provided for pupils who do not proceed to a secondary school. The courses of study for this class are of a practical nature with a pre-vocational bias.

The Hyderabad scheme also makes definite provision for the establishment of different types of vocational and technical schools for those pupils who do not desire to proceed to secondary schools of the normal type.

[] Information not received in time for placing before the meeting of the Board.

APPENDIX I (b).

MEMORANDUM ON ITEM III OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Progress in Adult Education.

The Adult Education Committee of the Central Advisory Board of Education recommended *inter alia*, that "valuable assistance might be afforded to Provincial Governments and other authorities responsible for adult education if a committee of experts were appointed to report on questions of teaching technique and survey the results of experiment". The Central Advisory Board of Education to whom the report of the Committee was submitted at its fifth meeting held in May 1910, was of opinion that it would be premature at this stage to appoint a committee as suggested in view of the fact that it was too early to survey the progress of the movement as a whole or to assess the results of the experiments that were being carried out in many areas. The Educational Commissioner was accordingly asked to collect information from provincial educational authorities as to developments in their areas and to prepare a statement for the Board. A report in respect of the progress of adult education was made to the Board at its last meeting, and a further report is now submitted.

PROVINCIAL GOVERNMENTS.

Assam.

The Mass Literacy Scheme was formally inaugurated on the 11th September 1910 and the actual work made a real start from the middle of the following month.

The total number of centres up to the 30th September 1911 was 1,810, and the total number of persons under instruction during the period between October 1910 and September 1911 was 69,690, out of whom 55,498 passed the literacy test. Many of the other persons under instruction also acquired the ability to read and write but had not been able to reach the standard required for taking up the test of literacy fixed at the end of the term. Their deficiency was due mainly to their irregular attendance to the literacy centres. Arrangements have, however, been made for holding supplementary tests between the terminal ones to enable such persons to qualify themselves for securing the literacy certificates.

Out of the 1,810 centres opened in the province, 47 were women's centres with 1,082 females under instruction. 859 got literacy certificates.

Towards the cost of mass literacy, the Government contributed Rs. 72,000.

The Mass Literacy branch of the Education Department prepared primers, reading-sheets, charts, continuation readers, etc. and distributed these to all the centres free of cost. In addition 10,000 copies of the fortnightly News-sheet 'Janasikhyam' are printed and distributed to centres.

The organisation of the Post-Literacy work has already been undertaken in each of the sub-divisions of the province. Study circles have been started in some of the centres where the new literates are supplied with the news-sheet and the graded series of Readers published up-to-date

by the Mass Literacy branch. Steps have also been taken to start the circulating libraries for the benefit of the mass literacy centres. Each of such libraries so far opened has a free supply of booklets on topics of importance to the villager in his daily life and copies of 'Janasikhya'. The main function of the librarian is to persuade the new literates to read these books and the fortnightly news-sheet so that they may not relapse into illiteracy.

Bihar

During the year 1940-41, the adult education movement developed all over the province. A policy of consolidation and cautious advance was followed instead of unlimited expansion, quality rather than quantity was made the main objective. Literacy work was confined to one Thana in every district and the number of centres outside the selected Thana was reduced with a view to ensure better supervision. The number of organisers was increased and each of them was given fewer centres to supervise. Attempts were made to give some instruction to the volunteer teachers in the technique of teaching adults. However, war and the failure of crops in many areas, etc. has impeded progress to some extent.

Programme of work.—The number of centres in areas outside the "Non-Intensive" Thanans was limited with the object of ensuring proper supervision. These centres worked throughout the year with a short break during the rains. Efforts were made to stimulate the "Make Your Home Literate" Campaign in the schools. Centres organised by other agencies, e.g., the Rural Development Department, Sugar Mills, Jails, etc., worked throughout the year.

Intensive Work in New Thanans.—In 16 new Thanans, intensive work was started in October, 1940. Up to the 31st March, 1941, the number of illiterate adults under instruction was 109,957 and the number of persons who had passed the pre-Literacy Test was 83,940. During 1941-42 also intensive work in these thanas was continued.

Continuation Work in Old Thanans.—It was considered necessary to resume literacy activities in these Thanans which were selected for intensive work in October, 1939 with a view to (1) teaching those adults who could not be taught before, (2) persuading those who had already been made literate to attend post-literacy class and to read the two Readers prepared by the Provincial Mass Literacy Committee so as to prevent them from relapsing into illiteracy. This work terminated in January, 1941. In these areas, there were 1,430 pre-literacy centres attended by 17,696 adults and 2,088 Post-literacy centres attended by 45,639 adults.

Non-Intensive centres.—There were 2,218 pre-literacy centres from April to June 1940. 74,094 persons attended these centres and 34,122 were made literate during 1940-41.

Women's centres.—These centres were organised by the District Inspectresses of Schools. There were 631 centres for women at which 7,512 women were made literate.

Results.—During 1940-41, there were 11,821 pre-literacy and 5,170 post-literacy centres for males, out of which 10,655 pre-literacy ones were under the direct control of the Education Department. 456,692 male adults were under instruction in the pre and post-literacy centres under the direct control of Education Department. The total number of male

and female adults made literate by all agencies amounted to 221,393 of whom 7,542 were females.

Fortnightly news-sheet.—The paper "Roshni" continued to be edited by a Board of Honorary Editors for the use of newly-made literates. The paper proved to be very popular among the new literates as its language was easily intelligible to them. However, due to increased cost, the circulation had to be reduced from 30,000 to 15,000. The 'Dehat' published by the Publicity Department of the Government also had a wide circulation among new literates.

Reading Materials.—The Charts and Primers were revised and reprinted whenever necessary. Primers were printed in Oraon and Mundari, written in Nagri script, and Santhali Primers in the Roman and Nagri scripts were purchased and supplied to the centres.

Village Libraries.—During 1940-41, 2,000 village libraries in Hindi, Urdu, Bengali and Oriya were started in those thanas where intensive work was completed during the year. Steps were taken to stimulate the working of the 4,000 libraries which were started in 1939-40 and Thana Library Committees were formed to supervise them. Newspapers were supplied to a large number of libraries for one year. A series of two-pice booklets for the village libraries was specially prepared.

Visual Instruction.—14 magic lanterns and 29 sets of slides in possession of the Mass Literacy Committee were utilised for delivering a series of lectures, which proved to be very popular.

Expenditure.—The total expenditure amounted to Rs. 2,08,504 out of which Rs. 1,98,811 were provided from Government Funds: District Boards and Municipalities contributed Rs. 762 only, and donations Rs. 8,930.

Supervision.—Sub-Inspectors of Schools, assisted by a number of organisers, who were paid an allowance not exceeding Rs. 15 p. m. per head, organised and supervised the whole work. From time to time, Divisional and District Inspectors of Schools also paid visits to the centres.

Voluntary Workers.—The number of such workers reached a total of about 23,480 of whom 6,569 were professional teachers and the rest drawn from persons with sufficient education in the village communities. While the primary school teachers formed the core, the bulk of the teaching work was performed by non-teachers, to whom the Sub-Inspectors of Schools gave instruction in the technique of teaching adults.

Local Bodies.—Though some members of the District Boards and Municipalities took an active personal interest in literacy work, the financial assistance given by these bodies was not appreciable. In some areas, transfers of their teachers dislocated the work.

A New Development.—The mass literacy work has produced an increased demand for primary education for the children of the new literates. Further, some of the younger adults who have become literate have evinced a desire to continue their studies and to qualify for higher examinations. As an experiment, some of the Primary School teachers have been requested to give these literates some tutorial assistance so as to enable them to appear at the next Lower Primary Examination. About 2,000 new literates will be ready for this examination in December, 1942.

Bombay.

It was stated in the report submitted to the Board at the last meeting that in view of the heavy cost, the rate of grant during the later part of the year 1939-40 was reduced from the rate of grant sanctioned in 1938-39, viz., "A basic grant of not more than Rs. 5 per mensem plus a capitation grant at Rs. 2 per adult who satisfied the prescribed literacy test, or a grant of Rs. 4 per adult satisfying the prescribed literacy test, at the option of the worker.

In addition, a non-recurring grant for equipment equal to the cost of articles not exceeding Rs. 40" to the rate given below:

A —In villages with schools.

- (a) Equipment grant not exceeding Rs. 12.
- (b) Maintenance grant at annas ten per literate taught reading with understanding

B.—In villages without schools

- (a) Equipment grant not exceeding Rs. 12
- (b) Maintenance grant at Re 1 per adult taught reading with understanding.

This reduction caused a set back and there was a fall in the number of classes. At the end of 1939-40, nearly 50 per cent. of the classes disappeared and only 25 per cent. of the adults attending the classes became literate. During 1940-41 there were only 300 classes working and a total grant of Rs. 2,700 was paid to them. The whole scheme was, therefore, reviewed with a view to accelerating the programme for the liquidation of adult illiteracy and it was decided to restore the rates of grants sanctioned in 1938-39 with effect from the year 1941-42.

With this increased rate in view a provision of Rs. 1 lakh has been made in the budget for 1941-42 at the rate of roughly Rs. 5,000 per district. Instructions have also been issued to Inspecting Officers to encourage, as far as possible, the opening of adult education classes as a first step in all large villages with a population of 1,000 or over in which it is possible to collect an adequate number of adults to form a class.

During 1941-42, Government also sanctioned a scheme of training of Adult Education workers. Under the scheme it is proposed to hold during holidays training classes in some nine Government Training Institutions in the Province. The course will last for two weeks and will be conducted in each centre by two selected teachers from Government institutions. The workers attending the class will be paid a stipend of Rs. 10 per head.

In connection with post literacy work, Government have made a provision in the budget for 1941-42 of Rs. 60,000 for 2,000 village libraries. Under the scheme of Village Libraries it is proposed to open some 6,000 libraries in villages in which there is no library at present, and to pay a non-recurring grant of Rs. 30 to 50 for each library.

For adult illiteracy in the city of Bombay a separate Bombay City Adult Education Committee has been constituted. During the year 1939-40 the Committee maintained 960 literacy classes for Adults in Marathi,

Gujarati, Hindi, Kannada, Telugu and Tamil. These classes were attended by over 18,000 adults (17,000 men and 1,000 women), and some 14,500 adults passed the literacy test. The total expenditure of the Committee was Rs. 46,000 of which Government's share was Rs. 31,285. During 1940-41 the Committee had 1,140 literacy classes attended by over 21,000 adults (16,000 men and 5,000 women), and some 14,800 passed the literacy test. The total expenditure of the Committee was Rs. 61,840 towards which Government paid a grant of Rs. 46,000.

Central Provinces and Berar.

As an experimental measure a syllabus for use in adult schools has been sanctioned. The number of adult schools started by local bodies was 37 during 1940-41. Certain colleges and schools conducted night classes but reports show that the attendance at them was not very satisfactory. The village libraries started by the Education Department are regularly attended by adults and are making good progress.

Madras.

The Provincial Government consider that adult education classes working in the Presidency are of doubtful value, and that primary education should receive priority. The whole work has been left to be done by private agencies and local bodies.

[In 1940-41 there were 16 adult education classes (14 for men and 2 for women with 712 men and 51 women under instruction) and 131 night schools (126 for boys and 5 for girls with a strength of 7,746 and 321 respectively).]

North-West Frontier Province.

Adult education continued to receive special attention from the District Inspectors of Schools and the District Board teachers who have been working honorably in night schools for adults. There were altogether 216 schools attended by 2,311 adults. The expenditure on adult education from provincial revenues amounted to Rs. 4,325.

Orissa.

There has been no development in respect of adult education.

Punjab.

Prior to 1940-41, the teaching work in the anti-illiteracy campaign was conducted solely on a voluntary basis, except that the Education Department had taken upon itself the responsibility of supplying primers and follow up literature free of cost. In the budget for 1940-41 provision was made for Rs. 65,000 non-recurring and Rs. 22,800 recurring, to be continued for four years, besides Rs. 1,000 contributed by the Punjab Advisory Board for Books and a probable saving of Rs. 10,000 from the Special Development Fund. A slightly different line of action was adopted to augment and accelerate the rate of progress. As all activity connected with adult literacy had in the past been conducted on a purely honorary

basis, it was felt that the peak of honorary effort had been reached and it was not considered possible to maintain this level for long. 20 teachers at Rs. 7 p. m. each were therefore employed in each district to undertake the teaching of illiterate adults. In order to instruct the new teachers appointed under this scheme in the latest methods of teaching adults, a training course was organised in each district by the district inspecting-staff at a cost of Rs. 100 per district. To facilitate supervision of work two spare teachers were selected from the staff of each district board to act as adult education supervisors in the district. These teachers were given a special allowance of Rs. 15 p. m. each. As the existing travelling allowance allotted to the District Inspector of Schools did not permit them to undertake adequate touring to supervise adult literacy work, each District Inspector of Schools was given an additional sum of Rs. 15 p. m. for this purpose. It was felt that the award of cash prizes to voluntary workers had proved a great success. A sum of Rs. 100 was, therefore, placed at the disposal of each District Inspector of Schools to be distributed as prizes. It was noticed that in each district there were backward areas where adult centres could not be set up for want of satisfactory lighting arrangements, black boards, writing material, etc. A sum of Rs. 150 p. a. was consequently placed at the disposal of each District Inspector to meet such contingent expenditure.

220,000 copies of primers and 148,000 copies of follow-up literature were stocked by the Education Department at a cost of Rs. 34,881 for free distribution among those who offered to co-operate with the Department in the work of removing illiteracy. In addition to the above literature 21,550 books were purchased by the Department for distribution to 600 travelling libraries in the Punjab. 2 lakh copies of each of the adult literacy certificates and pledge card forms and 10,000 copies of honorary workers cards were stocked by the Department. A sum of Rs. 7,862-8-0 was spent in giving subventions to different journals for bringing out and supplying adult supplements to the various District Inspectors of Schools in the Punjab.

Eight literacy centres for women were opened in the Ambala Circle at a cost of Rs. 454-12-0. In all a sum of Rs. 98,446-2-6 was spent by the Department on adult literacy work during 1940-41. There were 118,298 adults under instruction on 31st March 1941, as compared with 82,461 on 31st March 1940. The number of adults who attained literacy on 31st March 1941 was 67,415 against 46,841 on 31st March 1940. The actual number of literacy certificates issued was 67,415. There were 2,833 literacy leagues and 3,243 literacy centres on 31st March 1941 as compared with 2,482 and 2,407 on 31st March 1940.

Sind.

In May 1941, the Provincial Government appointed a committee to suggest ways and means for the revival of the Literacy Campaign. The report of the committee is under the consideration of the Government.

United Provinces.

Work is being undertaken both to create and maintain literacy:

Creation of literacy.—There are 960 Government Adult schools in rural areas. Each school shifts to some other village as soon as all the willing and educable illiterates of the village have been made literate. The number of aided schools was 579. More than 6,877 persons undertook the work of spreading literacy on the bonus system. Of these, the number of District Board teachers was nearly 4,400 including 177 women teachers. The total number of people made literate during the calendar year 1940 was nearly 900,000 including 6,010 women. About 800 vernacular middle schools have taken up the "Village Adoption Scheme" under which each school undertakes to make one village in their neighbourhood literate. One hundred and ninety Special Police Literacy schools have been started at 5 schools per district in 38 districts to make illiterate police chawkidars and constables literate. The number under instruction is about 1,750. A special reader has been prepared for them by a senior I. P. S. Officer which has been published by the Education Department.

Government make special grants for teachers and books to introduce literacy in jails.

One hundred aided adult schools for women have also been started in 19 selected districts in the first instance in which 902 women are under instruction. A special reader has been prepared for them.

Special institutions and bodies engaged in spreading literacy, e.g., Ram Krishna Mission, Harijan Sewak Sangh, Christian College, Lucknow, Labour Welfare Centres, Criminal Tribes settlement, etc., were also given subsidies.

Maintenance of literacy.—In order to prevent relapse into illiteracy, 1,000 Government libraries are maintained and aid is given to 506 privately managed libraries. Each Government library has three to five branches which get 20 books in a box each month. There are 3,600 Reading Rooms which are supplied with Hindi and Urdu weeklies and magazines. Those Reading Rooms whose readers agree to contribute half the cost are also given daily vernacular papers of their choice. The number of books issued from the Government libraries during the calendar year 1940 was nearly 17,00,000. In pursuance of the scheme of female literacy, 40 libraries for women have also been started and each has been given -books worth Rs. 150 in addition to periodicals. The fifty Women's Welfare Centres of the Rural Development Department in Fyzabad were given a grant of Rs. 500 and each was supplied with magazines and weeklies.

Post-Literacy Literature.—A scheme has been drawn up to publish 25 books, in the first instance, suitable for new literates so as to stimulate in them the habit of reading through simple, interesting and informative books. A set of 10 such books has been supplied to the libraries and schools.

Special Books for Libraries and reading rooms.—For the convenience of readers, special editions of Hindi and Urdu dictionaries were also supplied to these institutions. Government adult schools have been provided with copies of the Ramayan and a special edition of the Milad Sharif. The advanced pupils and teachers read them out to their friends. The Department has also published anthologies of popular songs and poems in Hindi and Urdu for the use of the pupils.

The war greatly stimulated the villagers' interest in news and therefore the Department prepared and supplied maps of the War Zone in Hindi and Urdu to all the 3,600 reading rooms. A war atlas and an illustrated book on modern armaments were also supplied to libraries and reading rooms. In order that the villagers might appreciate war news properly and get correct information about the progress of war and clear idea of such things as aeroplanes, submarines, parachute, etc., a profusely illustrated war magazine named "Sachitra Sansar" in Hindi and "Ba Tasvir Duniya" in Urdu is being published under the auspices of the Education Department and supplied to all the schools, libraries and reading rooms, jails and some other Departments of the Government.

The various schemes of the Education Department are examined and approved by the Provincial Adult Education Committee presided over by the Director of Public Instruction. It also appointed a sub-committee of five members to prepare a syllabus for the adult schools and a course of the post literacy education. It is also proposed to convert 25 per cent. of the schools in one district in each Inspector's circle into continuation schools and to introduce the subject of adult education in the syllabus of the Normal Schools so that teachers may get training in this branch as well. In the districts, adult Education Committees consisting of eleven members have been formed to help the Department in running the scheme and to administer district literacy fund.

Any scheme for promoting literacy which is not backed by a legal obligation must depend for its success on the willing co-operation of the people concerned. To secure this, intensive propaganda is done by teachers through meetings in villages and at fairs and markets. Altogether 12,470 meetings were held during the calendar year 1940. Literacy Day was celebrated on 16th February 1941, throughout the province to focus public attention on this vital problem and to give the scheme wide publicity in order to secure the maximum possible co-operation of all concerned. On this day largely attended meetings were held in the province. The All-India Radio Station, Lucknow arranged a special Literacy programme on this day in which leading Hindi and Urdu poets also participated. Literacy figures for the quarter ending June 30, 1941, are as under:

<i>Enrolment.</i>	<i>No. of Literacy certificates awarded.</i>
77,881	38,809.

LOCAL ADMINISTRATIONS.

Ajmer-Merwara.

There is no arrangement at present for adult education in Ajmer-Merwara but the question of making suitable provision is being examined.

Delhi.

There are 13 adult schools in the province attended by 286 adults.

A syllabus for adult schools has been drawn up and circulated to the schools. The District Inspecting staff conducted literacy tests and the Department awarded 37 literacy Certificates to the successful adults in the year 1940-41.

A tentative scheme of Adult Education in the city of Delhi has been drafted. At the start, 15 centres have to be selected for adult Education with one adult school in each centre. The expenditure on the scheme is estimated at Rs. 8,000. The Delhi Students' Literacy League is also doing useful pioneering work in this direction.

STATE GOVERNMENTS.

Baroda.

From May 1939 to April 1941 altogether 1,648 classes have been conducted and 23,916 adults attended them. 9,562 out of the total received literacy certificates.

Adult classes in backward areas are paid a monthly contingency grant of Rs. 2 to 4 and in addition a yearly grant of Rs. 50 for every batch of 50 persons rendered literate. At other places, work done is regarded as honorary, but schools or centres doing good work become eligible for prizes ranging from Rs. 50 to Rs. 250 p. n.

A committee has been appointed to examining the question of providing suitable literature for the newly made literates. As there is a widely extended system of village libraries organised in the State, the problem does not present any great difficulty.

Cochin.

An Adult Education Association has recently been formed in the State.

Mysore.

Mysore University Union launched upon a scheme of making the people of the State literate. Volunteers to do the work came in good numbers and classes were started in the various *mohallas* of Mysore City. The response from the people was good and several 'Mandirs', 'Garadis' and 'Anjumans' were utilised for holding the classes and now these places have become cultural centres of the localities. A scheme for a full course of literacy and the "follow on" course has been worked out and suitable literature has been produced. The period fixed for acquiring literacy is about two and half months and the post-literacy course, which helps to prevent lapse into illiteracy occupies another two and half months. The Adult Education Series, four numbers of which have so far been published, helps to foster the reading habit and incidentally provides a course of liberal education.

The students of the Mysore University who stayed in the city during the vacation and the Primary School teachers combined their efforts and conducted work in Mysore City and the City Municipal Council, in addition to the assistance given in organising the classes, made a grant of Rs. 500 towards the allowances of teachers. The Vice-Chancellor of the University sanctioned an additional grant of Rs. 500 for the work in the villages by members of the Union. The total number of students who joined the Summer classes was 650, and 470 of them took the literacy test, and 450 passed the test. A notable feature of the work was that the menial establishment of several offices joined the classes in large numbers and the heads of offices readily allowed the holding of classes in the office buildings. Several district boards and *panchayets* sought the help of the

committee in starting classes in their places. The Welfare Committee of Bhadravati enabled seventy-nine illiterate pupils to receive certificates after completion of the first course of literacy.

Leaving out the expenses of organization, it has been found that the cost of making one person literate amounts Rs. 3-4-0 for a period of five months. This sum includes the allowance of the teacher.

According to the present programme the entire male population of the city of Mysore could be made literate before the next census.

A series of 24 booklets will be published by the Adult Literacy Council every year, issued once a fortnight, to form the nucleus of a library, reading sheets for the use of the pupils who are just learning to read will be published in order to provide them with additional reading matter. The Council has also a scheme for equipping a "library on wheels" at an initial expenditure of Rs. 1,000 and an annual recurring expenditure of about Rs. 800. This library will consist of 600 books and will circulate in six literacy centres and will provide good reading for 1,200 members.

The scheme of adult literacy in Bangalore City was launched in July, 1941 with eleven centres for imparting teaching in Kannada of which one was for ladies and two were for teaching Urdu. There are four sessions in the year, each of three months duration for primary literacy. After this period, the new literates are being given a follow-on course of about two months to prevent them from lapsing into illiteracy. The City Literacy Campaign has made arrangements for the training of workers in collaboration with the Kannada Sahitya Parishad and 21 people have already obtained training in adult literacy work. Arrangements have also been made to test the new literates at the end of the post-primary period. The total number of pupils in all the centres is 265 and most of them have completed the first adult literacy primer. For the present, the services of student workers are being utilised and when the next primary session opens in November 1941 new centres are opened an attempt will be made to utilise the services of the local municipal school teachers. The financial resources of the campaign consist of a grant of Rs. 2,000 by Government, a grant of Rs. 200 by the City Municipality and a donation of Rs. 200 by Mr. V. Sundaramurti.

The University Settlement with its headquarters in Bangalore is also co-operating with the City Literacy Campaign in respect of adult education. In 1940-41 the volunteer teachers of the Settlement made 47 persons literate. In 1941-42, they have two centres for imparting education in Kannada, Telugu, Tamil and Hindi. The number of adults attending at these two centres is 72 and the number of children 92. During the years to come, it is hoped that it will be possible to extend the scope of the Settlement activities in regard to adult literacy.

A central organisation known as the Mysore State Literacy Council has been constituted, with a view to co-ordinate the efforts of the several agencies. This Committee may appoint sub-committees of experts to investigate and report on the several questions at issue, such as method of instruction to be followed, training of teachers, standard to be prescribed for tests, publications, etc. This committee will draw up a programme of work indicating how it is proposed to be put into effect.]

Travancore.

No scheme of adult education has so far been organised in the State.

APPENDIX I (c).

MEMORANDUM ON ITEM IV OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Views of Provincial Governments, Local Administrations, etc., on the principles suggested by the Board with regard to the award of scholarships from public funds.

At its last meeting held in January, 1911, the Central Advisory Board of Education considered the views of the Provincial Governments and Universities in India on the question of withholding the emoluments of scholarships provided out of public funds from those students whose parents are financially capable of meeting the cost of their education. The Board defined the two categories into which scholarships can be divided:—

- (a) prizes awarded in recognition of outstanding scholastic distinction;
- (b) grants awarded to enable students of ability to continue their studies.

With regard to (a) the Board felt that these awards should be made entirely on merit and that the winners should be entitled to the emoluments irrespective of the financial circumstances of themselves or their parents.

With regard to (b) the Board were of opinion that here again merit should be the primary criterion, i.e., no student should be eligible for any award unless he had reached the prescribed standard. Subject to this proviso those eligible candidates who cannot satisfy the responsible authorities that they are in need of financial assistance to continue their studies, should be awarded Honorary Scholarships and the emoluments thereof transferred in order of merit to other eligible candidates, if any, who have established their need of assistance.

It was further agreed that the practical application of this principle would involve the framing of scales of income limits which would vary at different stages of education and would take account of financial liabilities i.e., responsibility for the maintenance or education of other children devolving on the person concerned.

The holders of honorary scholarships would be entitled to claim the emoluments in the event of a change in their financial circumstances bringing them within the prescribed income limits.

2. These principles were brought to the notice of Provincial Governments, Local Administrations, State Governments and Universities in India. They were asked to say if they endorsed these principles and in that event to communicate the action which they proposed to take to give effect to them. The information received from these authorities is summarised below.

Provincial Governments.

Bengal.—The Provincial Government have approved of the principles suggested by the Board regarding the award of scholarships. Details are still under consideration.

Bihar.—The Provincial Government are of opinion that there is no reason why a student who has obtained a scholarship by dint of labour should be deprived of it, unless he voluntarily gives it up.

Bombay.—The general principles suggested by the Board are already being followed in main in the province.

Central Provinces and Berar.—There are no scholarships falling in category (a), that is, prizes awarded in recognition of outstanding scholastic distinction. All scholarships are now designated stipends and are awarded upon a poverty-cum-merit basis and would properly fall in category (b), i.e., grants awarded to enable students of ability to continue their studies.

The application of the poverty-cum-merit principle to high schools in this province has not on further examination been found to work very satisfactorily. The limit of income for such scholarships has been fixed at Rs. 500 a year, i.e., at a little over Rs. 40 per mensem. This figure may be high enough for a parent with a small family to be able to afford to send his son to high school and to complete his course there up to the matriculation examination; but as the minimum cost of education at a college is in the neighbourhood of Rs. 35 per mensem, the parent, after the boy has passed his matriculation examination, is unable to afford to send the boy on to a college. The result, therefore, is that the application of this principle does no more than increase the number of boys who are able to study up to the matriculation examination, and it automatically selects boys who are most unlikely to be able to go any further. Assuming that the object of a scholarship or stipend system should be to educate children up to the limit of their capacity, it is clear that the poverty-cum-merit principle produces exactly the opposite result. It encourages students to go as far as matriculation, but no further. No provision has so far been made for the grant of scholarships of large value to enable them to go on to a college, and in the existing state of the provincial finances it will not be easy to do so. A complete lack of correlation between high school and collegiate education is, therefore, at present an inevitable result of the manner in which the poverty-cum-merit principle has been applied.

[The following statistics illustrate the view set forth above with regard to the unsatisfactory working of a poverty-cum-merit basis for stipends —

I Scholarships awarded on merit only before the year 1938-39

Year.	No. of scholar- ships awarded.	Division in which passed the High school Certificate Examination.				No. of students who joined college.
		1st.	2nd.	3rd.	Total	
1935-36	91	24	44	13	61	46
1936-37	76	19	40	3	62	34
1937-38	75	39	29	1	69	52

II. Stipends awarded on poverty-cum-merit basis.

Year.	No. of scholar- ships awarded.	Division in which passed the High School Certificate Examination.				No. of students who joined college.
		1st.	2nd.	3rd.	Total.	
1938-39	87	9	47	12+2 pass division	70	14
1939-40	89	Still Reading in		Class XI.	-	
1940-41	87		Do.	do. X.	-	

Statistics in regard to stipends awarded in 1939-40 and 1940-41 are naturally not yet available, but important conclusions are indicated even from the results for the single year 1938-39. It will be noticed that in the last three years in which scholarships were awarded on merit, an average of 27 scholarship holders were placed in the first division in the High School Certificate Examination, whereas out of the 87 students granted stipends in 1938-39 on a poverty-cum-merit basis, only 9 were so placed. The conclusion to be drawn is that the attachment of the condition of poverty lowers the standard of attainment very seriously.

The second fact that emerges is that there is an immediate and substantial fall in the number of pupils who join college after passing the High School Certificate Examination. In the last three years when scholarships were awarded, the average was 45 as against 14 who went on to college in the first year for which we have results as to what stipend holders did after passing the High School Certificate Examination. This is exactly what was expected. The poverty basis of Rs. 500 per annum adopted in this province must stop boys at the matriculation stage; and even if ample scholarships were provided at colleges for them, few would, as shown in the preceding paragraph, be worthy of receiving them. The net result therefore of a poverty basis is to encourage the mediocre and discourage real merit.]

A further point is that the annual income of a parent or guardian affords no real criterion of his ability to send his son or daughter to a school or college. A man with a yearly income of Rs. 500 and one son only may be able to afford to do so, whilst a man with a yearly income of Rs. 1,000 and six children may be unable. It is apparent that only a searching enquiry into the exact economic circumstances of each parent would make it possible to determine whether he really needs financial assistance to enable him to maintain a particular child at an educational institution. Such an enquiry it would not be practicable to make. In fact there is already more than enough difficulty in merely ascertaining whether an applicant's income is no more than the prescribed limit. The conclusion appears to be, therefore, that either the limit of

income must be raised to a figure which does not really justify the designation of poverty at all, or else this restriction on the grant of scholarships in accordance with pure merit should be entirely abandoned. In this connection it is to be observed that even if the limit is fixed so high that the guardian could afford to send his child to a high school even without the aid of a scholarship, it does not mean that the scholarship cannot be profitably used. There is no limit to the number of books, which a student could buy if he had the means, even at the high school stage of education, and even more so in the higher stages; and since the average standard of living in this country is comparatively low, a scholarship would be valuable if it enabled a student to do no more than achieve a higher standard. At any rate, it is inevitable that in the absence of a carefully graded system of scholarships which would leave the guardian to provide exactly the same additional amount from his own pocket at all stages of education the poverty-cum-merit scholarship is liable to operate as a hindrance rather than as an aid to education.

For the reasons stated above the whole problem is being further examined by the Provincial Government with particular reference to the following two points—

- (i) Regrouping scholarships, so as to secure in category (a) scholarships of sufficient value to maintain scholars at all stages of education up to a degree, some open and some reserved for Backward classes, and
- (ii) Either removing the poverty qualification or so raising the actual limit of income applied as to admit of such scholarships being held by persons who can afford to study at least up to a degree.

As regards the honorary scholarship, the proposal appears to be completely impracticable. In the first place, in actual practice the student who gets the cash may be as low as seventh in the order of merit; that means presumably that each of the first six could be dubbed honorary scholars. Alternatively, only number 1 may get that appellation. But the intention of the Central Advisory Board on this point is not very clear. Secondly, the suggestion that the holders of honorary scholarships would be entitled to claim the emoluments in the event of a change for the worse in their financial circumstances takes no account whatever of the ordinary principles of finance. Suppose that in the middle of the academic year an honorary scholar's father loses all his money. Would he then demand that the holder of the cash scholarship should hand over the cash to him and presumably leave school or college because he could not afford to carry on? Alternatively, is it expected that Government would then produce a supplementary scholarship for the honorary scholars? And if, as has been suggested above, there are no less than six honorary scholars, would any of the six be entitled to claim against number 7 and would number 2 be entitled to claim against number 3 after number 3 had succeeded against number 7? The idea seems to be full of difficulties and does not commend itself to the Provincial Government.

Madras.—Scholarships instituted by the Provincial Government are generally granted only to poor students of promise. The Provincial Government do not consider it necessary or desirable to introduce a system of

'Honorary Scholarships' as the number entitled to such scholarships according to the standard adopted for paid scholarships would be so large that there would be no distinction in such a title.

North-West Frontier Province.—All kinds of scholarships from public funds have been awarded in the province on the score of merit and poverty. A well-to-do student with merit does not get a scholarship. This principle has been in force for the past 28 years or so; and there has been no difficulty in enforcing it. The people of the province appreciate the soundness of this principle.

Punjab.—The Provincial Government endorse the principles suggested by the Board with regard to the award of scholarships from public funds. The idea of grading income for various stages of education, etc. is not, however, considered to be practicable and consequently the Provincial Government have decided to adhere to the income limit already followed by them.

"Government scholarships not awarded to students whose father's or guardian's income is Rs. 5,000 or more and whose father or guardian pays land revenue exceeding Rs. 1,000."

With regard to the proposal that an honorary scholar should be given his scholarship if his financial circumstances deteriorate, the Provincial Government have stated that under the rules in force in the province the scholarship vacated by an honorary scholar is awarded to the next eligible candidate, and as the number of scholarships to be awarded in any year is fixed, there will ordinarily be no scholarship available for award to such a scholar. The situation could, however, be met by creating extra scholarships when necessary.

Further, prizes in recognition of outstanding scholastic distinction based entirely on merit and irrespective of the financial circumstances of the winners or their parents are already being awarded in the Punjab.

Sind.—The procedure obtaining in the province regarding the award of scholarships is on the lines recommended by the Board, and therefore no change in that respect is necessary.

United Provinces.—[The U. P. Government agree with the suggestions made by the Board. The distinction between two classes of scholarships and stipends has been made definite and emphatic by the employment by the Board of the terms "prizes" and "grants".

Prizes (*i.e.* scholarships for standing high in an examination at the end of the year) should be awarded regardless of the financial circumstances of the student. A certain amount of money should be set apart in the budget for grants to enable poor students to continue their education. These should be given only to such students as display conspicuous ability, not necessarily of the standard of those who obtain prizes but still a fairly high standard. The U. P. Government consider, however, that the suggestion to award honorary scholarships is an unnecessary complication and it is possible to secure the desired object by framing suitable rules for prizes and grants.

The U. P. Government further think that these 'grants' should not be continued beyond the high school stage; the claim of poor, but not meritorious, students on the finances of the province should cease at that stage.

An exception may, however, be made in the case of scheduled castes, and possibly the backward classes.

This Government intends to implement these recommendations by laying down rules prescribing financial limits and the standard of proficiency to be obtained by a student to be eligible for a grant.

To a large extent the suggestions of the Board are already followed in this province and Government provide a sum of nearly 4 lakhs for scholarships. Of this sum, nearly half is meant for award as stipends to poor and meritorious students, including those of the scheduled castes and backward classes. Government now propose to consider a more formal separation of this allotment between prizes and grants.]

Local Administrations.

Ajmer-Merwara.—The Chief Commissioner agrees with the Board as to the division of scholarships into two categories. In the case of honorary scholarships, it is doubted whether there would not be difficulties in ascertaining whether or not the family circumstances of a student are such as to render him incapable of continuing studies without such financial assistance as a scholarship would afford. The system is nevertheless worth trying and steps are being taken to amend the Ajmer-Merwara scholarship rules accordingly.

Baluchistan.—In the case of Middle and High School scholarships, which are awarded on the results of the Primary and Middle School examinations, although a scholarship winner is not debarred from being awarded a scholarship on the ground that his parents are sufficiently well off to meet the cost of the child's education themselves, there are scholarships for which only locals and domiciled locals are eligible.

This question was discussed when the revised Education Code was being drafted in 1937, and the question of laying down that (as in the Punjab) no scholarship should be awarded to a pupil whose parents are in receipt of a certain minimum annual income, or who pay a certain sum as land revenue, was also considered. But it was felt that that would be an arbitrary criterion because other factors such as the responsibility for the maintenance or education of other children devolving on the person concerned, must also be taken into consideration. It is extremely difficult to gauge the exact extent to which an Indian parent is able to provide for the education of any one of his children; and there are very few rich people in Baluchistan. The Agent to the Governor-General is of opinion that it is not necessary to attempt to fix any hard and fast line above or below which a scholarship should or should not, be awarded. Post-Matriculation scholarships are awarded on the recommendations of a Scholarship Board, the members of which take the financial circumstances of each candidate's parents into consideration.

Delhi.—The same views as those expressed by the Chief Commissioner, Ajmer-Merwara.

State Governments.

Baroda.—The State Government accept the recommendations of the Board.

Cochin.—Scholarships are awarded in the State for merit, but no percentage of marks is fixed. It is desirable to award scholarships in recognition of outstanding scholastic distinction, a high percentage of marks being fixed for the purpose. Scholarships are also awarded to poor but deserving pupils of the Backward classes and the Depressed Classes and half-free concessions to poor pupils of the Backward classes. Half-free scholarships are also awarded on the result of the Form III (Public Examination) and School Final Examination in the order of merit, but no standard has been fixed here also for the student to become eligible for the scholarship. These half-free scholarships and half-free concessions are granted with reference to the income of the guardian. The Government consider that it is desirable to fix standard for these also. No Honorary Scholarship system has been introduced in the State and in the opinion of this Government, the Board's views are worth adopting. These points will be made items of reference to a Committee that will be set up shortly to devise the State Education Code.

Hyderabad.—The Nizam's Government agree to the division of the Scholarship into two categories as suggested by the Board. With regard to the first classification (prize awarded in recognition of outstanding scholastic distinction), the Government agree with the Board that these awards should be made entirely on merit. With regard to the grants awarded to enable children of ability to continue their studies, the Nizam's Government have suggested that the bursaries be awarded to poor and promising students who are likely to be benefitted by pursuing their studies.

Travancore.—The State Government support the principle suggested by the Board, and they propose to have the present position in regard to the basis for the award of scholarships reviewed.

Universities in India.

Agra.—The University agrees with the principles suggested by the Board.

Andhra.—The University has already given effect to the recommendations of the Board with regard to the award of scholarships.

Calcutta.—The University is emphatically of the opinion that scholarships should be awarded on merits only.

Delhi.—The University endorses the views expressed by the Board and proposes to give effect to the principles embodied in them.

Lucknow.—The University is emphatically of the opinion that scholarships should be awarded only on academic merit and on no other consideration.

Madras.—The University agrees with the general principles enunciated by the Board.

Nagpur.—The University accepts the principles and as far as practicable subject to the terms of the endowments concerned, will try to give effect.

Travancore.—The University supports the principles embodied in the resolution of the Board and proposes to have the present position in regard to the basis for the award of scholarships reviewed.

APPENDIX I (d).

MEMORANDUM ON ITEM V OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Views of Provincial Governments, Local Administrations and Universities in India with regard to the recommendations of the Scientific Terminology Committee of the Board.

The Scientific Terminology Committee of the Central Advisory Board of Education which met at Hyderabad-Deccan in October, 1940 made the following recommendations:

I. That in order to promote the further development of scientific studies in India, it is desirable to adopt a common terminology so far as may be practicable and full regard should be had to attempts which have already been carried out with this object in view.

II. That in order to maintain the necessary contact between scientific developments in India and similar developments in other countries, the scientific terminology adopted for India should assimilate wherever possible those terms which have already secured general international acceptance. In view, however, of the variety of languages in use in India and of the fact that these are not derived from one common parent stock, it will be necessary to employ, in addition to an international terminology, terms borrowed or adopted from the two main stocks to which most Indian languages belong as well as terms which are in common use in individual languages.

An Indian scientific terminology will therefore consist of—

- (i) An international terminology, in its English form, which will be employable throughout India;
- (ii) Terms borrowed or adapted from Hindustani or the Dravidian languages according to the affinities of the area, but avoiding as far as possible difficult words from Sanskrit, Persian or other classical languages;
- (iii) Terms peculiar to individual languages whose retention on the ground of familiarity may be essential in the interest of popular education. In the higher stages of education terms from categories (i) and (ii) may be progressively substituted for those in category (iii).

III. To ensure the steady and uniform growth of Scientific Terminology on an all-India basis, it is desirable that there should be a Central Board of Reference with expert sub-committees whose guidance on general issues and decisions on specific issues submitted to them would be accepted by Provincial Governments and other regional bodies concerned.

IV. That on the assumption that Indian languages may be divided into two main groups, viz., (i) Hindustani, (ii) the Dravidian group, Boards should be set up for each group with the object of evolving a common terminology within the group.

V. That for the sake of uniformity mathematical propositions and questions in Urdu should be written from left to right.

VI. That to promote uniformity and to encourage the widest possible use of the terms approved, the authorities responsible for authorising the

use of text-books should see that only those are sanctioned which employ the terms in question.

2. The Central Advisory Board of Education which considered the report of the Committee at its meeting held at Madras in January 1941 adopted the recommendations of the Committee subject to the following modifications:—

- (a) No. II (ii) in the Recommendations should be deleted. The great majority of the members present were of opinion that the adoption of this recommendation would introduce an unnecessary complication since the legitimate aspirations of modern Indian languages in this respect could be satisfied under (iii) which, as the Chairman pointed out, did not preclude the adoption of new words formed and evolved in accordance with the traditions and genius of a people as distinct from neologisms invented, as it were for their own sake.
- (b) The two main groups into which Indian languages may be divided should be Sanskritic and Perso-Arabic instead of Hindustani and Dravidian as suggested by the Committee.
- (c) The words 'Mathematical propositions and questions' occurring in recommendation No. V and in para. 12 (a) in the report to be changed to 'Mathematical processes and formulae'.

3. These recommendations were brought to the notice of Provincial Governments, Local Administrations, State Governments and Universities in India who were asked to forward their views thereon, together with information as to the action taken or likely to be taken in the matter. The replies received from these authorities are summarised below.

Provincial Governments.

Assam.—The Provincial Government accept the recommendations of the Board with regard to Scientific terminology. They are however doubtful if scientific terms can be coined without the help of Arabic or Sanskrit. The Calcutta University has taken steps to coin such a terminology.

Bihar.—The Provincial Government agree generally with the main conclusions and recommendations of the Scientific Terminology Committee of the Central Advisory Board of Education. They have no comments to make on modification (c), as obviously it calls for no remarks. They see no objection to modification (a), provided that the modern Indian language referred to therein is understood to be Hindustani so far as Bihar is concerned; but they are unable to accept modification (b), as they would prefer the classification made by the Committee of the Indian languages into main groups, *viz.*, (i) Hindustani and (ii) Dravidian. Hindustani has already been introduced in all the schools of the province, as the medium of instruction. At present, all the non-language subjects, *i.e.*, History, Geography and Mathematics, etc., are being taught in schools, through the medium of Hindustani.

The Provincial Government have appointed a Committee for the purpose of "setting up a satisfactory standard for Hindustani as the common language and to consider the specific problems of common technical terms and other problems pertaining to the question of preparation of text-books etc." The Committee is required "to consider the specific problems pertaining to the introduction of Hindustani as a common vernacular to be

used as the medium of instruction and to give an authoritative solution of all questions that may arise in this connection'. Besides compiling and preparing a Hindustani Dictionary, a Hindustani Grammar, and textbooks for schools, the Committee has devoted much of its time in preparing Hindustani technical and scientific terms and has now practically finished the work.

The Committee adopted the following principles for the preparation of scientific terms in Hindustani:—

- (a) Scientific terms should be, as far as possible, drawn from current Indian sources, commonly understood, and not directly from Sanskrit, Arabic or Persian or any other language.
- (b) Failing the above, terms usually employed in scientific terminology in the west should be adapted to our requirements.
- (c) The two above methods failing, words from Sanskrit, Arabic or Persian may be used with equivalents (as now used in Urdu or Hindi) printed in brackets, so that the learner may become familiar with both sets of terms.

As regards non-scientific literature it was agreed that—

- (a) Words should be, as far as possible, drawn from current Indian sources, commonly understood and not directly from Sanskrit, Arabic or Persian, or any other language.
- (b) Failing the above, words from Sanskrit, Arabic or Persian may be used with equivalents (as now used in Urdu or Hindi) printed in brackets so that the learner may become familiar with both sets of terms.
- (c) Failing both the above methods, words usually employed in the west should be adapted to our requirements.

Bombay.—As the Provincial Government think that the main recommendations of the Board will obviate the coining of unnecessary neologisms in place of foreign terms of long established currency, they accept the recommendations of the Board and propose to bring them to the notice of the following institutions interested in the subject:—

- (1) The Deccan College Post Graduate and Research Institute, Poona.
- (2) Gujarati Sahitya Parishad.
- (3) The Gujarat Vernacular Society, Ahmedabad
- (4) The Marathi Sahitya Parishad, Poona.
- (5) The Deccan Vernacular Translation Society, Poona
- (6) The Marashtriya Shastriya Paribhashe Mandal, Poona 2
- (7) The Maharashtra Kosh Mandal, Poona 2
- (8) The Karnatak Vidya Vardhak Sangh, Dharwar
- (9) The Kannad Sahitya Parishad, Dharwar
- (10) The Kannad Research Institute, Dharwar

Central Provinces and Berar.—The Provincial Government have offered no views on the recommendations made by the Scientific Terminology Committee or the modifications suggested therein by the Board. The Director of Public Instruction, has, however, stated that as instruction in scientific subjects in the colleges in the provinces is imparted through the

medium of English, the question of translating scientific terms into Indian languages does not arise.

Madras.—The Provincial Government accept recommendation No. II of the Committee as modified by the Central Advisory Board of Education, and accept recommendation No. III of the Committee.

With regard to recommendation No. IV as modified by the Board, the Provincial Government have implemented the following corresponding recommendation of the Madras Technical Terms Committee:—

"It is necessary to draw up a standardised list of technical terms, common to all South Indian languages, for conceptual or abstract names and ideas, as for example, qualities, properties, names of subjects of study; force, centre, volume, nutrition, action, reaction, sensation, latitude, longitude, equinox, surface, liquid, solid, gaseous, rotation, algebra and geometry. These names may be based on Sanskrit elements for Dravidian languages and on Persian and Arabic for Urdu. This group will necessarily be small".

With regard to recommendation No. V of the Committee as modified by the Board, the Provincial Government have accepted the following corresponding recommendation of the Madras Technical Terms Committee:—

"In Mathematical and scientific books, Arabic numerals and the signs and symbols in use in English books are to be retained".

With reference to recommendation No. VI of the Committee, the Provincial Government have implemented the following corresponding recommendation of the Madras Technical Terms Committee:—

"When the lists (submitted by the Special Committees) have been finally adopted by this Committee it would be necessary for Government by order to prescribe them for use by the writers and the publishers of recognised text-books, by teachers in recognised schools and by examiners at public examinations".

North-West Frontier Province.—The Provincial Government have stated that there can be no two opinions on the desirability of having common scientific terminology but they can, unfortunately, take no initiative in this matter as the secondary schools and colleges in the province are affiliated to the Punjab University. This is primarily a matter for the consideration of the Punjab University.

Orissa.—The Provincial Government have offered no views on the recommendations of the Scientific Terminology Committee or the modifications suggested by the Board, but have stated that the question of a common scientific terminology has not seriously arisen in the province because the students who take the Matriculation examination of the Patna University are taught Science through the medium of Oriya, and technical terms found in text-books written in English are to be used in answering questions in Science, in accordance with the instructions of the Patna University.

Punjab.—The Provincial Government have not expressed their views on the Committee's recommendations but have stated the general position from which it is clear that they are not enthusiastic about the evolution of a common scientific terminology, as their experience in this direction has not been very encouraging.

Some years ago an effort was made by the Punjab Education Department to standardise the terms frequently used in the text-books for schools in the province.

The University of the Punjab has also considered the question of fixing a terminology to be used in the text-books for the Matriculation classes. The Provincial Government are, however, doubtful if a common terminology for the whole of India can be evolved and in the Punjab the problem bristles with administrative difficulties.

Sind.—The Provincial Government have referred the question of scientific terminology to the Central Advisory Board of Control for Sindhi Literature. They will communicate the final conclusions arrived at as soon as possible.

United Provinces.

[*United Provinces.*—The Provincial Government is not in favour of inventing a new set of terms either Sanskritic or Perso-Arabic. They feel that where in any particular region a word already exists either in its language or has been adopted and has become current by use, it should be given preference. For terms which have not yet acquired any regional equivalent the best plan would be to use the international word in its English form. That would secure uniformity which is very desirable in a country with many languages and dialects like India. It would not preclude the development of regional equivalents by natural methods and their subsequent adoption in place of the international word.]

Local Administrations.

Ajmer-Merwara—The Chief Commissioner agrees with the recommendations of the Committee as modified by the Board, but he has suggested that in order to secure uniformity and to encourage the widest possible use of terms approved, a circular be issued to all universities and Boards of Education in India to keep these terms in view while approving text-books for their examinations.

Baluchistan.—As the recommendations of the Scientific Terminology Committee do not affect Baluchistan very much, no comments have been offered.

Coorg—The District Educational Officer, Coorg has stated that the adoption of the English terminology in place of the existing Kannada or Sanskrit equivalents is not advisable even for the sake of uniformity in the matter in all the languages of India. The chief aim of the adoption of a uniform scientific terminology for regional languages is that apart from getting text-books written for use in educational institutions, suitable popular literature in all modern sciences written in a style and manner which are intelligible to the layman should be made available. This being so, the wholesale adoption of the English terminology in preference to the Kannada and Sanskrit terms cannot be advocated since this course will frustrate the main object.

Delhi.—Views on the recommendations of the Scientific Terminology Committee have not been offered, but the general opinion is expressed that the adoption of a common scientific terminology for the whole of India, however, desirable, is not a practical proposition unless there is a guidance from a central authority; otherwise new terms will continue to be introduced in a slipshod manner and the authors of books using Urdu

[] Information not received in time for placing before the meeting of the Board.

as medium will continue to prefer the use of Perso-Arabic words just as those using Hindi as medium will not hesitate to draw upon Sanskrit Vocabulary.

With the increasing demand for text-books in modern Indian languages, there is sure to arise a confusion of terms unless one uniform scientific terminology is evolved and recommended by some central authority operating through the Provincial Committees.

For some time to come a major part of the scientific terminology must be borrowed from the English language. The terms of Indian origin can only be introduced profitably at the pre-university stage of education. So long as Indian students in scientific and technological subjects go to the British and Western Universities for their advanced studies and research work, the proposed predominantly English terminology must continue at the university stage. For the secondary stage the Indian terminology should be more useful as it would lessen the strain imposed on younger students by the foreign terminology.

The recommendation No. III of the Committee that 'there should be a Central Board of Reference with expert sub-committees whose guidance on general issues and decisions on specific issues submitted to them would be accepted by Provincial Governments and other regional bodies concerned, is accepted *in toto*. This Board should constitute three expert bodies to help them in evolving terminology; (a) based on words of Sanskrit origin, (b) based on words of Perso-Arabic origin, and (c) for Dravidian languages. Each body should be asked to draw upon the vocabulary of classical languages only in such cases where equivalents cannot be found in the current Indian sources. The Central Board should encourage, as much as possible, the use of such terms which are common in Urdu and Hindi, so that the common vocabulary may assume an increasing importance and such terminologies as are suited for Urdu and Hindi or Dravidian languages may be confined to the minimum use.

State Governments.

Baroda.—The State Government agree to the recommendations of the Committee as modified by the Board.

Cochin.—The State Government accept the recommendations of the Committee as modified by the Board. The coining of terms peculiar to Malayalam, the language used in the State, can, however be taken up only after the International Terminology in its English form is got ready by the Central Board.

Hyderabad.—His Exalted Highness the Nizam's Government do not accept the modifications (a) and (b) suggested by the Board, but agree to the original recommendations of the Committee. They, however, accept the modification (c).

Travancore—The main conclusions of the Committee as modified by the Board are generally acceptable. It has however been stated that while the international terminology, in its English form, will be employed for the purpose of writing books and for teaching where the medium of instruction is English, it does not appear that any progressive substitution of the terms in the Indian languages will be necessary either for teaching or for the writing of text-books when the Indian language is the medium used.

Malayalam can be grouped with languages of Sanskritic origin, but it has pronounced connections with the Dravidian group. It is therefore felt that the number of main groups should be increased to three as suggested by Pandit Amaranatha Jha, Dravidian group being added to the two at present approved by the Committee.

With regard to recommendation No. III, the State Government is of the opinion that rigid control by a Central Agency is neither feasible nor desirable. Similarly, while it may be expected that due weight will be given by the authorities responsible for prescribing and approving textbooks to the official glossaries, a rigid exclusion of books which depart from the approved terms, no matter how slightly, will hamper growth of the language and unduly crush initiative in authors. It has to be borne in mind that the objective aimed at can be realized only by an enthusiastic co-operation between official committees for prescribing technical terms, authors who write text-books and books on popular science and teachers. For such co-operation to be effective, there should be room for give and take between all these three agencies for the furtherance of the object.

Universities in India.

Agra.—The matter has been referred to the Faculty of Science of the University.

Alligarh.—The University says that the medium of instruction for scientific subjects in the University classes is English and the international terminology adopted by the English Universities is used. The medium of instruction for the School classes up to the Matriculation standard is Urdu, but in the study of scientific subjects the international terminology is used along with Urdu equivalents wherever possible. A Board for the translation of scientific terms into Urdu has not so far been instituted, but it is hoped, funds permitting, to do so in the near future.

[*Allahabad*.—The University agrees entirely with the views of the Committee as modified by the Board, but the University proposes to take no action at present.]

Andhra.—Recorded.

[*Benares*.—The University considers that the terms which have already secured international acceptance and are practically in common use in India should be accepted. For the others, it would be cumbersome and unnecessary to insist upon two different systems and there is no reason why only one system, namely Hindustani, should not be adopted. Either Sanskrit or Persian equivalents could be used in that language.]

Calcutta.—The University accepts the views expressed by the Board.

Delhi.—The matter is under consideration of the University.

Lucknow.—The matter has been referred to the Faculty of Science.

Madras.—Recorded.

[*Mysore*.—The University is of opinion that it is desirable to have a common terminology for the whole of India.]

Nagpur.—The Academic and Executive Councils agree generally with the recommendations of the Board in principle but consider that the use of Indian words should be given more encouragement than that contemplated in the recommendation. Anyhow, the medium of education in the University being English (except as regards language subjects in certain cases), translation of scientific terms has not been found necessary at present.

Travancore.—The same as those expressed by Travancore Government.

4. As there is a general agreement with regard to the appointment of a Central Board of Reference with expert sub-committees, as suggested in recommendation No. III of the Committee, the Central Advisory Board of Education may now consider taking the necessary steps to constitute such a Board of Reference.

APPENDIX I (e).

MEMORANDUM ON ITEM VI OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Views of Provincial Governments, etc., with regard to the recommendations of the Social Service and Public Administration Committee of the Board and certain further information in respect of social service work undertaken by voluntary agencies.

The Social Service and Public Administration Committee of the Central Advisory Board of Education which met in New Delhi in November 1940, made the following recommendations:-

I. (a) That there should be established in India, preferably at Delhi, a centre in which an impartial and thorough examination of the problems connected with the Social Service and Public Administration in its relation to the Social Services, could be carried out.

(b) That for the purpose a central body, to be called the All India Council of Social Service, should be set up with an Institute for research under its control.

(c) In order that the institution might be at all times in close touch with practical problems and have some place where actual experiments could be carried out it would be extremely desirable that there should be closely associated with it, if not under the same direction, a training school for social workers.

II. That in each province and other large administrative areas there should be at least one centre affiliated with the All-India Council the main object of which would be to stimulate and co-ordinate the work of social service agencies, voluntary and official, in the area and to arrange for the training of social workers of all grades.

III. That training in social work should be given to the officials of public departments concerned with the social services as well as to the workers of voluntary bodies.

IV. That every University in India should have a department for extramural work in charge of an officer who has had a thorough training in Social Service.

V. That as most of India's population is in the rural areas, corresponding importance should be attached to training for service in rural areas persons with a real knowledge of and interest in country life.

VI. That the composition of the proposed All-India Council of Social Service and the staff of the proposed Central Institute and their remuneration should be as set out in paragraphs 11-14 of the report.

VII. That the annual recurring cost of the Central Institute estimated at between Rs. 75,000 and Rs. 1,00,000 should be borne by the Government of India for an initial period of 5 years.

VIII. That every effort should be made to build up an endowment fund which would make the Central Institute self-supporting within a reasonable period.

2. The Central Advisory Board of Education which considered the report of the Committee at its meeting held at Madras in January 1941 adopted generally the recommendations of the Committee. The need

for an All-India Council of Social Service with a central research institute was generally accepted. Discussion centred mainly on the question of the extent to which such a central institute should or could undertake the training of social workers. The general opinion was that since practically all the subjects covered by the term social service are included in the field of Provincial Administration, it would be impracticable for the training of workers to be carried out on an all-India basis. This practical training would best be done at Provincial centres. While, however, research should be the main function of the Central Institute, its students might be expected in the normal course to return to work in the Provinces and during their time at the Central Institute they would also require facilities for 'field work'. It would not be possible to decide the precise structure of the central organisation recommended by the Committee without more detailed information as to what is being done in the field of social service by various agencies, official and voluntary, in various parts of the country.

The Board, therefore, decided that before implementing the recommendations Provincial Governments and voluntary agencies of all-India character should be requested to furnish detailed information regarding (i) existing agencies engaged in social service in their areas (including universities), (ii) the scope of their activities, (iii) their relation to one another and the means adopted to co-ordinate their activities. It was further decided to invite suggestions as to ways and means of consolidating and extending the work of social service generally and particularly among women.

3. These recommendations were brought to the notice of Provincial Governments, Local Administrations, State Governments and Universities in India, who were asked to furnish the information desired by the Board. The replies received from these authorities are summarized below.

Provincial Governments.

[*Assam*.—The existing branches of all-India organisations are the following:—

Ramakrishna Seva Samiti, Panchakhanda.—This organisation consists of an Ashram and a Seva Samiti. The Samiti carries on the following activities as its permanent work:—

- (i) Regular classes and discussions are held on spiritual and moral topics. Sometimes scholars are invited from outside to lecture on Vedantic and universal principles of Religion.
- (ii) The Samiti maintains a library containing about 700 books, mainly on religion, literature, history and the like. Last year an average of 200 books were issued monthly. The religious magazines and two newspapers are subscribed for its reading room.
- (iii) A small 'student home' with five seats have been started to help the boys in building character.
- (iv) Maintains two primary schools. These schools import education to the depressed class boys who have the least opportunity and time to attend other primary schools of the local board.

(v) Manages a Homeopathic dispensary giving medicine free to about 8,000 poor and distressed people annually.

Boy Scout Association.—Scouts tried their best to act up to their sacred motto and promise. When there were necessities, they nursed the patients in charitable dispensaries as well as in private houses, rendered First Aid in case of accidents, raised funds and rendered help in case of emergencies, put out fires, disposed of dead bodies and rendered help in public functions such as conferences, exhibitions, *Melas* and festivals as the case might be.]

Bengal.

Social service is essentially a Provincial subject and if it is to be effective must be worked through existing departments such as Rural Development, Education and Medical. In particular the development of a spirit of social service should be an essential part of any educational programme and should be incorporated in the ideals accepted for University and Secondary Education.

While full co-operation and sharing of experience between the provinces is very desirable, there is a great danger that in devoting the energies and finances of any Central Board of Education to the establishment of a Central Research Depot the result will be the creating of a theoretical centre of technical research rather than of ensuring the development of schemes in which practical service is the key note. The chief lack of India at the present time is not so much a knowledge of what should be done as the absence of a belief in social service expressed in a desire to render practical help. While there is room for research upon certain fundamental problems, the most important thing in the first place is to create a feeling of dissatisfaction with things there are and a willingness to give service to ensure improvement.

The Central Bureau might for example impress upon the provinces the necessity for co-ordinating activities of private and philanthropic organisations with official and semi-official schemes for general uplift.

A desirable scheme would appear, therefore, to be for each province to organise social services and to attach to Universities or other institutions sections which deal with social services from the scientific point of view and for the Central Board of Education to act as a clearing house of ideas and as a co-ordinating body. It might arrange for the sharing of specialised training, for example, through the deputation of men from one Province to another where specific problems are dealt with. It would also automatically circulate to the Provinces information relevant to the development of Social Services here and elsewhere.

An account of the activities of the Ram Krishna Mission, Belur, Howrah, which is a voluntary agency of recognised all-India status working in the field of social service is given below:—

General Service.—Most of the *Math* and Mission centres in India, Ceylon and Straits Settlements, working under the Headquarters Mission at Belur, conducted various institutions ministering to the physical needs of the public in general irrespective of caste, creed, colour or nationality. In 1939 there were 9 Indoor Hospitals which accommodated 11,928 patients, 58 outdoor Dispensaries which treated 16,74,077 patients, and 85 Ashramas undertaking home nursing, cremation, etc.

Educational Work.—In 1939, there were 37 Ashrama, accommodating 1,128 students, 9 ordinary High Schools and 3 Residential High Schools with 3,304 boys and 1,142 girls, 3 Industrial Schools and 7 Vocational and Agricultural Sections attached to other schools with 385 boys and 75 girls, 10 Middle English Schools with 1,534 boys and 629 girls, 68 Upper and Lower Primary Schools with 8,186 boys and 2,264 girls, 81 Night Schools with 1,170 students and 2 Sanskrit Schools with 89 students.

Work among Women—The Mission has done very useful work for the womanhood of India. In addition to the *Shishumangal Pratishtan* for expectant mothers in Calcutta, there are the Woman's section of the Hospital and the attached Widows' Home at Benares, the Sarada Vidyalaya in Madras and the Sister Nivedita Girls' School in Calcutta. Besides, there are special arrangements for women in the Mission's other hospitals, dispensaries and schools.

Village Uplift and Work among the Labouring and Backward classes.—Permanent centres have been started for helping the hill tribes, the backward classes and village folk. These centres are responsible for conducting about 120 institutions of various kinds. Educative tours with magic lanterns, gramophones, etc. are undertaken on a wide scale. A good number of Night Schools and Cinemas for the labouring classes in Industrial areas were opened.

Relief work.—The Bengal Flood Relief, the Orissa Cyclone Relief, the Midnapur Flood Relief and the Kathiawar Famine Relief are among the types of work done in this direction.

Spiritual and Cultural.—The Math and Mission centres laid special emphasis on the dissemination of the spiritual and cultural ideas and ideals of the Hindus, and through various types of activity tried to give a practical application to the teaching of Sri Ramakrishna that all religions are true.

Bihar.

- (1) The existing agencies in the province are the following:—
 - (a) The Bihar Harijan Sewak Sangh, Patna. (Its object is to improve the present condition of Harijans—depressed classes).
 - (b) The Khademan Anjuman Islamia Orphanage, Patna City.
 - (c) The Rani Krishna Mission, Patna and Muzaffarpur.
 - (d) The Association for providing Homes for the Homeless at Muzaffarpur. Its object is to encourage organised charity and to discourage professional begging.
 - (e) The Patna Blind School.
 - (f) The Working Committee for the Child Welfare Centre, Patna.
 - (g) The Aghore Nari Silpa Pratishtan (Industrial School for Women), Patna.
 - (h) The Sir Ganga Ram Widow Marriage Trust, Patna.
 - (i) The Bharat Seva Ashram Sangh, Gaya (An association to help pilgrims etc.)
 - (j) The Ranchi Yogoda Brahmacharya Ashram, Ranchi.

- (k) The Purulia Nava Kusthashram, Purulia (A leper-asylum).
- (l) The Bihar Boy Scout Association.
- (m) The Bihar Seva Samiti.
- (n) The Hindustan Scouts Association to organise the scout movement and to do social work.
- (o) The Girls Guides Association, Bihar.
- (p) The Provincial Mass Literacy Committee (A Government organisation to remove illiteracy).
- (q) The Indian Red-Cross Society, Bihar Provincial Centre, Patna.
- (r) The St. John Ambulance Association, Bihar Provincial Centre, Patna.
- (s) The Rural Development Department, Bihar (A Government department to improve the condition of villages and villagers).
- (t) Several Christian Missions.
- (u) Bihar Council of Women.

No means have so far been adopted to co-ordinate the activities of these associations except in so far as they come immediately under the control of Government.

The following suggestions are made as to the ways and means of consolidating and extending the work of social service:—

- (1) Every college in the province should have a social service league, the aims and objects of which should be to organize and train students for social service in (a) mass contact and uplift, (b) relief work and (c) preparation of student-volunteers for social work.
- (2) There should be a separate centre for females for social service.
- (3) The Principal of St. Xavier High School, Patna; recommends the formation of an organization to be called the Bihar Social Welfare Council or Committee (or some similar name) to be constituted and organised by those persons now actively engaged in social welfare work. Those, who by their experience, advice, influence and funds could be of help, should also be invited to assist in this work. The purposes of this Council would be:—
 - (a) To make a survey of and draw up a report on the existing agencies engaged in Social Welfare Work in the province.
 - (b) To find ways and means to co-ordinate these activities and agencies.
 - (c) To carry on research, study provincial problems etc.
 - (d) To train social workers.'
 - (e) To establish a library especially devoted to Social Welfare subjects.
 - (f) To have a bureau of publicity to arouse the interest and appreciation of the Public.
 - (g) To enlist teachers and students in a campaign of Social Service.
 - (h) To organise District Committees to assist the Provincial Committee.
 - (i) To organise committees especially in colleges and schools for active social work.

Bombay

The Provincial Government have sanctioned a scheme for the training of rural assistants for general village reconstruction work by educating the village people to tackle their economic, social and other problems. Five training centres have been sanctioned under the scheme each to train 35 workers a year.

In 1939, a Committee was appointed to draw up a scheme for training women workers in rural reconstruction work, but the scheme prepared proved defective. Consideration of the scheme has been deferred for the present but enquiries are being made as to whether any of the existing institutions interested in women welfare will agree to train women workers in rural development work.

A short account of the activities of the Labour Welfare Department and of the institutions doing social service work is given below. At present no co-ordination exists.

Labour Welfare Department.—This Department aims at providing the labour population of large industrial towns with means of employing their leisure times in healthful activities and wholesome amusements. Recreation centres have also been started with the object of improving their education, health and moral outlook. There are 4 large and 16 small centres; large centres possess a central hall for meetings, lectures, cinemas, and dramas, a library, a gymnasium, a large playground for adults and a smaller one for children, while smaller centres are located in rented premises where such activities are conducted on a smaller scale. They are managed by a large number of welfare officers, and the personnel of the Department also includes many research workers. In one of the centres (at Ahmedabad) there is an industrial workshop for the training both of apprentices and of labourers already employed with the dual purpose of solving the problem of industrial unemployment and of raising the standard of skill and efficiency of operatives already engaged in the mill industry. The Department has a Film Producing Unit which has produced 16 new films of topical and educational subjects to be shown at the centres, and a film exhibition unit, consisting of a Visual Instructor assisted by four Assistant operators.

2. *The Sir Dorabji Tata Graduate School of Social Work*.—The Director has expressed the opinion that time is not yet ripe for starting centres for the training of social workers in each province, since the principle of professional training for social work has not yet been commonly accepted and the idea that any person can do social work prevails. Thus if social workers are trained in the several provinces the problem of unemployment will simply be aggravated. In the Tata Institute 20 or 25 students are admitted every two years, so that the supply may remain below demand. The result is that all the workers turned out are absorbed.

It has been suggested that the Tata School should be made the all-India Institution, and should be subsidized by grants from the provinces. The Central Institute, if started in Delhi, can function as a Research Institute.

3. *Bhil Sudhar Samiti, Dhulia*.—This Samiti provides educational and medical facilities for the Bhil population in the province. The medical branch is maintained from small private contributions. Its aims are—

- (a) to start as many primary schools as possible to make people literate,

- (b) to give medical relief to the poor in their homes,
- (c) to teach the general principles of hygienic living,
- (d) to train people to earn a livelihood on economic lines without having any recourse to money lenders,
- (e) to start grain banks and cheap cloth shops in rural areas,
- (f) to encourage cultural and moral interests.

The Samiti favour any step for consolidating the social work done at present by giving training to workers on an all-India basis. It has been suggested that to spread social work among women, the following action should be taken:—

- (a) Hostels for girls should be started.
- (b) Special propaganda work through dramas, kirtans, lantern-lectures, phono performances, etc. should be undertaken by educated and trained women.
- (c) Anath ashrams for women should be established.

4. Social Service League, Bombay.—The League's activities are confined to the city and suburbs of Bombay, the only exceptions being the Florence Nightingale Village Sanitation Fund from which grants are given for sanitation in Villages, and the Industrial Settlement at Belgaum the control of which has only recently been handed back to Government. The League annually holds a Voluntary Social Workers' Training Class, the course extending over three months. The women's branch conducts Industrial Schools and Classes for women:—

Attempts were made a short while ago to revive the Bombay Council of Social Workers, and an organisation called the Federation of Social Welfare Institutions was brought into being. It recently appointed a Committee to prepare a Directory of Charities and Welfare Institutions in the City and suburbs of Bombay.

Suggestions for the establishment of an All-India Council of Social Service with a Central Research Institute.—The Social Service League whole-heartedly welcomes the idea of an all-India Council with a Central Research Institute. This Council when set up should see that the social problems are dealt with in all provinces in accordance with the basic principles of social service, although latitude may be allowed in details to local organisations. The proposed Council should review the progress of social service in the country from time to time and direct the attention of provincial authorities to those problems which seem to have been neglected. The Council should also undertake enquiries with regard to problems in which all or several of the provinces have a common interest.

If there is to be one school or college providing facilities for training for all the provinces, the League is of opinion that the Government of India should take full advantage of the Sir Dorubji Tata Graduate School of Social Work in Bombay and should ask Provincial Governments to send students to that school with scholarships. Post-graduate courses in social service should also be instituted in the various universities.

Social work should be carried on both in urban and rural areas. In most urban areas, non-official agencies devoted to different kinds of social work are already in existence. Only the question of grants to them needs consideration.

With regard to social work in rural areas, full co-operation between Government and local bodies is required. In addition to the highly qualified social workers responsible for the organisation and supervision of social work in each district, a large number of social workers are required for rural uplift in villages. Women workers are necessary for carrying on work among women. Pre-natal and post-natal care, mothercraft, home hygiene, dietary, sewing and cutting, domestic economy in general, should be the special features of social work among women.

Poona Seva Sadan Society.—The activities of this Society lie mostly in the direction of education, though it also runs certain Hospitals. Its achievements during 1939-40 may be briefly narrated as—

- (1) It has trained 84 women teachers for primary schools and 28 needle-work and craft mistresses.
- (2) It has successfully trained 84 girls up to the Matriculation and 11 up to the Intermediate Arts standard and imparted education to 2,297 women and girl students through various educational institutions.
- (3) It has supported 88 poor girls receiving education with free and part-free boarding and lodging.
- (4) It has treated 1,624 labour cases at the Hospitals conducted through the Society, and 181 outside the Hospitals. 11,269 women and children were treated at the out-patients dispensaries.
- (5) It has maintained a Home for the homeless at Nasik with 10 inmates.
- (6) It has maintained 9 hostels with 181 inmates at various centres including two hostels for depressed class girls with 38 inmates.
- (7) It has conducted 97 classes for the benefit of students.

Servants of India Society.—This society was founded in 1905 with the purpose of training a body of national missionaries pledged to give their best, without seeking any personal advantage to the service of India in all secular fields and without reference to religion or community. Its activities cover many fields, viz., Political, Economic, Co-operation, Rural Welfare, Uplift of Harijans and Aboriginals, Social Service and Social Reform, Scouting, Educational and Liberty.

Central Provinces and Berar.

It has not been possible to get the required information about Social Service.

Madras.

Social services are of different kinds and they include—

- (a) Adult Education.
- (b) Scouting.
- (c) Red Cross Society.
- (d) Rural Reconstruction work.
- (e) Visits to hospitals.

Adult Education classes are attached to a few Government institutions. The classes are conducted by the pupils and are maintained mainly out of voluntary subscriptions from students and staff. Local bodies have

been permitted to open Adult Education classes and in some cases Night Schools. In recent years, Local Bodies have evinced great interest in providing facilities for the education of adults, but unfortunately many of their schemes have not been successful. In addition to maintaining schools for adults they have encouraged private agencies to undertake adult education work by making contributions from their funds towards the maintenance of these adult Education classes. The Madras Government has as a matter of deliberate policy been more concerned with getting all boys and girls of school age into school, rather than fostering schemes for the education of adults. Scouting and Girl Guiding are under the control of Private agencies. Government are, however, subsidising the movement, with annual grants.

The Red Cross Society is also under the control of private agencies.

Government institutions have been encouraged to run Scout troops, girl guides and junior Red Cross Groups in their respective institutions and pay the affiliation fees from out of Provincial funds. Many schools under all classes of management have Scout Troops, Girl Guides and Junior Red Cross branches.

Rural reconstruction work is usually undertaken by private agencies and District Boards. In this Presidency there are already more than 50 such centres.

Visits to hospitals are undertaken by several social service leagues in the Presidency such as those at the Queen Mary's College and at the Lady Willingdon Training College.

The scope of the activities of these agencies is given below:—

- (a) *Adult Education*.—Night schools are conducted for adults.
- (b) and (c). *Scouting, Girl Guiding and Red Cross Societies*.—The work of these is well known.
- (d) *Rural reconstruction work*.—The work done generally by the various Rural Reconstruction Centres is teaching the villagers improved methods of cultivation by way of supplying seeds, preservation of manure, improving live-stock and poultry, fostering of cottage industries, such as spinning, weaving, pot-making, mat-making, agriculture, voluntary help for meeting the needs of the village, such as road laying, drainage, lighting, construction of latrines, and bore wells. In several centres, adult education classes, exhibitions, lantern lectures, rural libraries, inter-village and inter-school sports and recreations, thrift and Co-operative Societies are organized.

- (e) *Visits to hospitals*.—The work done generally is the distribution of magazines and journals to the hospitals and the care of patients in the hospitals who have no relations to visit them and also the distribution of flowers for the hospitals.

Their relation to one another and the means adopted to co-ordinate their activities.—The work done by the several organizations mentioned above always overlaps which is inevitable. These organizations usually get together when exhibitions are conducted and propaganda work is undertaken. Beyond this it may not be necessary to link them on a Presidency basis.

On the question of extending the work of Social Service generally and particularly among women much has already been done in this Province but further encouragement is, of course, being given.

North-West Frontier Province.

The only two voluntary agencies with a recognised all-India status working in the province are (a) the Church Mission Society which is interested in education generally and is running a first grade college and three high schools, (b) the North-West Frontier Province Boy Scouts Association, which is primarily interested in Scouting and Social Service.

Orissa.

There are no institutions with a recognised all-India status interested in social service which have headquarters in the province. There are, however, the following branches and centres of some voluntary agencies interested in social work with headquarters in other provinces:

- (1) Servants of India Society—Rural uplift including Harijan uplift
- (2) Harijan Sevak Sangha—Uplift of depressed classes
- (3) Ramkrishna Mission—Care of the sick and poor.
- (4) The Orissa Women's League of Service (affiliated to the National Council of Women in India) work for ameliorating the condition of women.

Each society reports its activities to its own headquarters. These agencies are working in Orissa in different local spheres. Their activities have not been on such a scale as to make co-ordination necessary.

Punjab.

Since 1933, rural reconstruction work has been started in the province. It has brought about a great awakening in the villages.

Publicity and propugnada make a great contribution towards rural uplift. The travelling cinema has proved to be most popular. Every cinema show in the villages is made the occasion for the exhibition of uplift models, which represent in wood work and clay, the good village, the bad village, the consolidated village, the unconsolidated village, the sanitary home, the unsanitary home, etc.

The Rural Reconstruction office possesses a number of specially prepared gramophone records of rural songs in every Punjabi dialect. They have been distributed free to institutions and rural workers. Thousands of pamphlets, bulletins and leaflets in English, Urdu, Hindi, Roman Urdu, etc., on subjects like Public Health, Veterinary, Agriculture, Education, Women's Welfare, Co-operation and Afforestation have been prepared by the Rural Reconstruction office and distributed free.

Prize-essay competitions are held every year. The object is to encourage intelligent and independent thinking on rural subjects.

The Rural Reconstruction office finances fairs organised by the Co-operative Department. These fairs provide useful occasions for uplift propaganda, handicraft and agricultural exhibitions. This office also arranges every year a course of lectures on Rural Reconstruction for *Mujaddams*, Agricultural Assistants and *Patwaris*. Outsiders from all over India visit the province in order to acquaint themselves with the theory and practice of Rural Reconstruction.

Achievements.—Women's Welfare work is a notable feature. The Domestic Training School at Lahore started in 1938 has already turned out 58 women who are working in their respective districts.

example are raising the standard of living in village homes. The workers study the special needs of their respective localities and concentrate on literacy, sewing, knitting, cottage industries, sanitation, etc., according to local needs. The experiment has proved an unqualified success.

The movement for better villages has produced remarkable results. Every district holds its "better village competition" and prizes are awarded to those securing high marks in the various items of village uplift like Manure pits, paved streets, pucca drainage, etc.

The special Development Scheme started three years ago has given a fillip to the "better villages" movement. Every Tehsil selected for intensive development work has an efficient Model School following the play-way methods of teaching, equipped with scientific apparatus and provided with an agricultural farm, a free milk bar and a radio set. The Model Schools have established themselves as centres for the literacy campaign.

A network of better living societies, i.e., social reform societies, co-operative societies, etc., has grown up.

The Rural Reconstruction movement has been chiefly instrumental in awakening erosion-affected areas of the province to the dangers with which they are corporated. As a result, erosion has received a definite check in two districts and is being successfully combated in others.

Sind.

There are several social and educational agencies engaged in social service in the province, but they are not of an all-India character.

United Provinces.

There is little co-ordination between the activities of the various institutes doing social service work, and so far little or no attempt has been made to bring this about. The Rural Development Department works for the uplift of village folk and the schemes in the Medical Public Health, Industries, Agriculture, Veterinary, Co-operative, Forest and Education Departments are co-ordinated with a view to improving the condition of the villagers.

There is no institution in the United Provinces for imparting training in social service work though the need for one is felt.

A short account of the activities of the social service agencies in the United Provinces is given below:—

Rural Development Department of the United Provinces Government.—This department deals with rural uplift and other schemes pertaining to medical and public health, industries, agriculture, veterinary, co-operative, forest and education. The aims of these are to improve the condition of villagers, to lessen poverty, to remove ignorance and illiteracy, to ameliorate the condition of the women, to give better care to the sick and distressed, to prevent cruelty to animals, etc. These schemes are co-ordinated by the Rural Development Officer, United Provinces.

With regard to social service among women, the Department is experimenting at Fyzabad in training village women as welfare workers. After completing the course they will go back to the villages and start welfare centres where village women will not only be made literate but will also

be taught girl guiding, handicrafts, cooking, etc., and will be given general guidance in the methods of better-living.

The *Salvation Army* works among criminal tribes and looks after their uplift. The Mission also runs hospitals, criminal tribes settlements and does propaganda and social service work in villages.

Sewa Samiti, Allahabad.—The aim of the Samiti is to popularise the ideal of social service, to help distressed classes, to train social workers, to promote co-operation and physical culture, to take measures for the uplift of depressed classes, to start widow's homes and rescue Ashrams, to provide medical relief and to organise boy scouts. The society has run A. R. P. Ambulance and First Aid classes. It also runs a number of institutions of social service, dealing with education, medical relief and adult literacy and co-operates with other institutions in social service activities irrespective of caste, creed and colour.

All-India Agarwal Sewa Samiti.—The Samiti works at important fairs and renders help in traffic control, supply of water, searching and restoring lost children to their relatives. It also renders medical relief.

Arya Samaj.—This is a religious institution and its activities are confined to the social and religious uplift of the Hindu Society.

Gandhi Sewa Samiti, Cawnpore, maintains a volunteer corps to assist strangers and distributes food and medicines to the poor. The volunteers assist people in big fairs in Benares and Allahabad.

U. P. Kirana Sewa Samiti, Cawnpore, distributes money, clothes and medicines to the poor. It runs an Allopathic and an Ayurvedic dispensary. Stipends are given to poor students. Foundlings and lost children are looked after. In the hot weather drinking water is provided for labourers. The Samiti assists people visiting festivals and melas and maintains a first aid corps.

Chhotey Lal Gaya Prasad Trust, Cawnpore.—This is a charitable institution. Its activities consist in giving maintenance allowance to poor widows, distributing food to the poor and providing scholarships for poor students. The trust also runs a library and Dharanashala.

Anand Sewa Samiti, Cawnpore, and Hindustan Sewa Samiti, Cawnpore.—These maintain a corps of volunteers to assist the poor and undertake relief work.

Welfare Work Department, Elgin Mills, Cawnpore.—The department does social work among the mill workers. It runs a school for their children and has provided a recreation ground. It maintains a reading room and a hall for dramatic performances.

All-India Shia Conference, Lucknow.—This body is responsible for the existence of the Shia Intermediate College, Shia Arabic College, Sarfaraz Press (which publishes the daily Sarfaraz as well) and Lesanul Quam Library. These institutions are reported to render valuable service to the Shia community.

Anjuman Islahul Musalmin and Mumtaz Darul Yatama, Lucknow.—The main object of the Anjuman is to make arrangements for Muslim funerals. The *Darul Yatma* is an orphanage where Sunni orphans are brought up, and trained for various occupations.

Tanzimul Mominin, Lucknow.—Services of social nature are rendered by this institution in connection with processions and meetings. It also looks after the poor and unemployed.

Hussainabad and similar Trusts, Lucknow. derive income from investments or bequests made in the days of the Oudh Kings. Their social service activities are confined mainly to Shins, relief and pensions to the poor, educational aid to students and monetary help for religious purposes. Two small hospitals and poor houses are maintained by separate bequests.

Anjuman Islah Muasharat, Shahjahanpur.—The Anjuman aims at discouraging intemperate or extravagant habits.

European and Anglo-Indian Associations are:—

- (1) The European Association (with headquarters at Cawnpore).
- (2) The Anglo-Indian and D. E. Association.
- (3) The U. P. Benevolent Society.
- (4) The Dorothy Crosthwaite Homes.
- (5) The Strangers' Home.

These institutions do social service work among European and Anglo-Indian community.

Young Men's Christian Association, concerns itself among other activities with the welfare of soldiers both at home and abroad.

Indian Christian Union, Allahabad.—This association has been started by the Christians of Allahabad and is affiliated to the All-India Christian Conference. It works for the interest of the Christian community in general. It has organised War Committee, Employment Committee, and other committees of social work. It co-operates with similar organizations in social work of public interest.

Women's Union Missionary Society of America,—maintains a female-hospital which opens daily at Fatehpur and once a week at Jahanabad. It also maintains a women's home at Fatehpur for the instruction of girls and women, more specifically fallen girls or women in need of protection.

Hindustan Scouts Association, U. P., Allahabad.—The Association works at important fairs and renders help to visitors in traffic control, water supply, searching for and restoring lost children. It also provides medical relief and does health propaganda, anti-epidemic propaganda, rural development work, character building, camping, first aid work, etc.

Boy Scouts Association, U. P., renders social service at fairs in various directions by undertaking such tasks as First Aid, fire fighting, traffic control, life saving, and water supply during melas and social functions.

United Provinces Provincial Centre of the St. John Ambulance Association. The U. P. Tuberculosis Association. United Provinces Branch of the Indian Red Cross Society.—These are agencies of an all-India status and an account of their main activities is given under 'Delhi'.

Girl Guides Association, renders useful service on lines which are as well known as that of the Boy Scouts.

The Women's Social Service League, Lucknow.—The activities of the League are educational, vocational, medical and philanthropic generally.

Hindu Mahila Ashram, Lucknow.—The Ashram gives protection to needy and helpless girls, widows and other poor women. They are educated and trained in spinning of charkha, sewing and cooking.

Kandicca Naik Sudhar Sabha, Haldwani.—The Sabha works for the uplift of the Naik Community and maintains a rescue home for Naik girls.

Harijan Sewak Sangh, Allahabad works for the uplift of the scheduled castes.

The Ramkrishna Mission Home of Service, Benares.—The main objects of this mission have already been described.

The U. P. Discharged Prisoners' Aid Society, Lucknow.—This society endeavours to give help to discharged prisoners in finding employment.

Servants of India Society—It was founded by Mr. Gopal Krishna Gokhale in 1905, with its headquarters at Poona. Its aims and activities have already been described.

Allahabad University Social Service League.—Its activities are confined to village uplift work, adult education and other efforts to improve the condition of backward classes.

Lucknow University. has an organisation for extramural instruction whose work has been in the following directions:—

- (1) Organisation of evening schools for working men.
- (2) Lectures in Indian languages illustrated by films and magic lantern slides, in slum areas.
- (3) Adult literacy work in villages.
- (4) The survey of slum areas and their various problems.

Aligarh Muslim University Union, makes social service one of its aims and objects. The members pay visits to neighbouring villages and run a rural school. There is also a society called Anjuman Islahul-Mu'afat which works for the cause of rural uplift.

The Benares Hindu University.—The Sevak Mandal organises magic lantern lectures on rural uplift, social reform and public health. It runs a day school for boys and another for girls besides five night schools for adults. Volunteer corps are organised to help pilgrims on special occasions and medical relief is rendered to villagers during plague and cholera epidemics.

Agra University.—There are social service leagues at affiliated colleges and their scopes and activities are:—

The Social Service League, St. Andrew's College, Gorakhpur.—The league every year runs one or two night schools in the city for a period of three or four months. To include the reading habit, students lend simple books to semi-literates once a week. Rural reconstruction work is also attempted in a village about three miles from the college and talks are given on cleanliness, sanitation, etc. Medical aid is also given when found necessary.

The Social Service League, Bareilly College, organises classes in First Aid to the injured, and helps in the recruitment of members for the St. John Ambulance Brigade Overseas for the Empire of India. The league also works for the removal of illiteracy from the depressed classes.

and distributes medicines free of cost to the poor. Lectures are also organised on sanitation, hygiene and the prevention of epidemics.

Christ Church College, Calcutta.—The students conduct a night school and visit the sick in hospital and go to the slum areas to impart instruction in cleanliness and healthy life.

The Social Service League, St. John's College, Agra.—Classes are organised for training in First Aid. A night school is run in the College and students co-operate in teaching poor boys.

Rural Development and Social Service League, Agra College.—Night classes are held for college servants and members of scheduled castes, who are supplied with books and other material free. Relief measures are organised in times of calamity such as heavy rains. Lectures on health and hygiene supplemented by practical demonstrations are given in rural areas. A day school for children and a night school for adults are maintained.

Social Service Work among Women.—A great deal is done for the uplift of women through the Education Department which awards scholarships to needy women. There are some institutions like the *Seva Sadan* in Allahabad and *Stri Sudhar Vidyalaya*, Bareilly, to which women are admitted in large numbers for education. These receive financial assistance from Government. The Government also help *Anathalayas* run by Hindu agencies. These institutions provide refuge for women and children. The *Naik Sudhar Committee* rescues *Naik* girls from the professional prostitute class.

The Chief Inspectress of Girls' Schools suggests that clinics should be attached to each Dufferin Hospital to instruct women in the question of birth control. It is further suggested that committees should be formed by District Magistrates which should publish yearly reports on the existing conditions, plans for preventing the spread of drunkenness, prostitution, neglect of children, disease, poverty, vagrancy, and all such social evils, and for awakening the public conscience about such evils.

LOCAL ADMINISTRATIONS.

Ajmer-Merwara.

The Chief Commissioner agrees with the recommendations of the Board in respect of social service and for the establishment of an all-India Council of Social Service with a central research institute. The Chief Commissioner has suggested that a beginning should be made in Ajmer by establishing a Social Service Centre under the care of some educational institution, preferably the Government College, Ajmer. There are no voluntary agencies of a recognised all-India status whose advice could be sought in the matter.

Baluchistan.

The following agencies are engaged in social service in Baluchistan:—

- (1) Red Cross Society.
- (2) Anti-Tuberculosis Association.
- (3) Boy Scouts Association.

The Red Cross Society deals with—

- (a) Maternity and Child Welfare and from its funds helps to maintain a centre for this activity.
- (b) Grants to Mission and other hospitals of the province.
- (c) The training of Health workers at the Lady Reading Health School.
- (d) The Junior Red Cross work.

The Tuberculosis activities of the province centre round :—

- (a) a clinic in the city.
- (b) a sanatorium in the neighbourhood of the Brewery near Quetta.

Coorg.

There are no voluntary agencies working in the field of social service in Coorg which could be asked to give the information required.

Delhi.

The Superintendent of Education, Delhi agrees with the recommendations made by the Board and in particular with the suggestion for the establishment of an All-India Council of Social Service with a central research institute.

The following voluntary agencies of a recognised all-India status are working in the field of social service in Delhi province :—

- (i) Council of Moral and Social Hygiene, New Delhi.
- (ii) Indian Red Cross Society, New Delhi.
- (iii) Lady Reading Health School, Delhi.
- (iv) Tuberculosis Association of India, New Delhi.
- (v) St. John Ambulance Brigade, Delhi.
- (vi) Anti-Leprosy Society, Delhi.

A brief account of their activities is given below :—

Council of Moral and Social Hygiene, New Delhi.—26 agencies in India carry out the work sponsored by the Council.

The Association works for the protection of women and children. Its aim is to educate public opinion, and to arouse the public conscience so that active measures may be taken against the traffic in women and children. Third party profiteers may be penalized and brothels gradually abolished. A high but simple moral standard in matters of sex is taught; the rehabilitation of victimised girls and boys is arranged; adequate confidential medical treatment is provided for diseased persons; and unsatisfactory customs, such as immature marriage, *devadassis*, *Nail*, *Merichi* and *Jalpam* customs are discouraged.

The scope of the activities of the Association may be summarized as :—

- (a) Lectures in the Universities and to social service groups;
- (b) the initiation of children's Aid Societies and Rescue Homes;
- (c) the training of provincial welfare workers and other social welfare workers;
- (d) the initiation of a scheme for co-ordination and progress in provinces and states;

- (e) discussions with the leaders in Women's Organisations in India as to their responsibility in moral and social welfare matters; women's groups such as the All-India Women's Conference; the National Council for Women in India; the Trained Nurses Association of India; the Y. W. C. A., etc.;
- (f) training of Indian Women delegates for the League of Nations Conference;
- (g) tours for discussion and initiation of work, and training of moral welfare workers;
- (h) promotion of laws for protection of women and children;
- (i) distribution of literature and translations;
- (j) propaganda against child marriage and other harmful social customs;
- (k) helping special cases.

Co-ordination of activities.—The Association has at present under preparation a scheme for the more formal co-ordination, which will include financial grants from the central body, and affiliation fees from branch societies.

Tours undertaken by the Central Organiser and Assistant Secretary have knit together the larger branch Societies, and strengthened their relationship to one another through personal contact.

The Central Association has besides contacts throughout India and Indian States, a link with the International organisations of the League of Nations.

Indian Red Cross Society.—The objects of this Society are the following.—

- (1) The care of the sick and wounded men of His Majesty's Forces, whether still on the active list or demobilised.
- (2) The care of those suffering from tuberculosis having regard in the first place to soldiers and sailors whether they have contracted the disease on active service or not.
- (3) Child welfare.
- (4) Work parties to provide the necessary garments, etc., for hospitals and health institutions in need of them.
- (5) Assistance required in all branches of nursing, health and welfare work, ancillary to any organisations which have or may come into being in India and which are recognised by the Society.
- (6) Home Service Ambulance Work.
- (7) Provision of comforts and assistance to members of His Majesty's Forces, whether on the active list or demobilised.

The St. John Ambulance Association.—Through this Association, men and women, boys and girls are trained without distinction of caste or creed, in First Aid, Home Nursing, and allied subjects to which has recently been added instruction in Air Raid Precautions. Those who have received such training may be enrolled subsequently in the St. John Ambulance Brigade, a branch of the Ambulance Department of the Order of St. John, which affords holders of certificates of the St. John Ambulance Association opportunities of combining individual effort for the public good.

of making themselves useful in various spheres of service, both military and civil, and thus of fulfilling the ideals of self-sacrifice and service to suffering humanity which are the fundamental principles of the Order of St. John.

During the year 1940, 58,011 persons attended 3,281 courses of instruction in First Aid, Home Nursing, Hygiene and Sanitation, and Domestic Hygiene and Mothercraft, of whom 38,596 qualified for the Association's certificates, namely 35,166 in First Aid, 2,884 in Home Nursing, 342 in Hygiene and Sanitation, and 194 in Domestic Hygiene and Mothercraft. In addition 87 persons obtained Voucher certificates by passing a second higher test in First Aid, 229 obtained Medallions by passing the same examination for the third time and 72 Labels and 2 Pendants were earned by passing further re-examinations in First Aid and Home Nursing. In the A. R. P. course 2,902 persons attended 140 classes, of whom 936 qualified for ordinary certificates and 310 for Instructors. The Mackenzie School Course continued to operate satisfactorily and during 1940, 10,918 students were instructed, of whom 7,647 qualified for certificates.

STATE GOVERNMENTS.

Baroda.

There are four industrial homes for women in the Baroda State. A brief account of the working of these institutions is given below:—

- (a) *Shree Chinnabai Stree Udyogalay (Baroda).*—This was established 27 years ago and has been doing useful work ever since. Women are taught sewing, knitting, embroidery, book-binding, typewriting, carpet making and calico printing.
- (b) *Shri Maharani Channabai Mahila Vishram, Wavsoari.*—This was founded in April 1928. It is open to women above the age of 16 on payment of an annual fee of Re. 1. It has 255 members. Women are taught sewing, knitting, cutting, embroidery work, fancy work, painting and singing.
- (c) *The Mahila Udyog Mandir, Unjha.*—It has five different classes in various branches of sewing for the 46 women maintained in the Home.
- (d) *Shree Parbhatabai Mahila Udyogalay, Unjha.*—22 women and 20 girls receive instruction in embroidery, sewing and knitting.

Cochin.

The chief agencies engaged in social welfare are the Y. M. C. A., Y. W. C. A., Salvation Army, Ramakrishna Mission, Scout and Girl Guide movements, Rural Reconstruction centres and Orphanages. There is no co-ordination among these agencies. The question of deputing an officer for undergoing the course in 'Social Service' will be considered after the establishment of a centre at Madras. On financial grounds, a centre cannot be opened in the state.

Hyderabad.

H. E. H. the Nizam's Government accept the recommendations of the Committee.

Mysore.

[Several institutions in the state, such as the Mysore State Women's Conference, the Deena Seva Sangha, the University Settlement, Seva Sadana, Bangalore, are engaged in social service.]

Travancore.

There is no institution or organisation established by the Travancore University for social service. In some of the colleges, societies organised by students are engaged in social service activities such as the spread of literacy among poor children through night schools, the giving of relief to the destitute, etc. The University encourages private agencies engaged in social service work.

UNIVERSITIES IN INDIA.

Madras.

The University is of the opinion that no action is called for at present.

Nagpur.

The University agrees with regard to all recommendations, except No. IV in respect of which it has been stated that as for financial reasons the appointment of a trained officer for extramural departments is not practicable, the extra-mural work of universities and colleges should be continued as at present.

Travancore.

The University shares the views expressed by the State Government.

Visvabharati, Santiniketan.

It maintains a permanent Institute of Rural Reconstruction at Sri niketan. Established in 1921, it has a trained and experienced staff in the following departments:—

1. Rural Welfare—

- (a) Education of Public opinion.
- (b) Research.
- (c) *Vratibalakas.*
- (d) Irrigation.

2. Health—

- (a) Rural Health Co-operative Societies with a central clinic and hospital.
- (b) Eye Infirmary.
- (c) Maternity and child welfare.

3. Educational Planning and Development.

- (a) Training of Teachers—Village Schools.
- (b) Art and Crafts Training.
- (c) Recreational Training.

4. Agriculture—

- (a) Experiments.
- (b) Dairy and goatery.
- (c) Extension work in villages.

5. Co-operation—

- (a) Banking.
- (b) Co-operative Village Societies.

6. Silpabharana—

Training in and improving of handicrafts for villagers.

APPENDIX I (f).

MEMORANDUM ON ITEM VII OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Views of Provincial Governments, Local Administrations, etc., with regard to the recommendations made by the Board on the question of separating the School Leaving Certificate Examination from the Matriculation Examination.

At its last meeting held in January, 1941, the Central Advisory Board of Education considered the desirability of having a separate School Leaving Certificate Examination in addition to the Matriculation Examination. The Board made the following recommendations:—

- (a) It is desirable on educational grounds that there should be only one examination at the termination of the normal high school course, i.e., there should not be separate Secondary School Leaving Certificate and Matriculation Examination.
- (b) In order to meet the varied aptitudes of the pupils and the circumstances of the vocations and professions which they may be destined to enter, this examination should cover as wide a field as possible.
- (c) The Universities could and should find in such an enlarged examination the necessary qualifying test for admitting students to their courses of studies.

2. These recommendations were brought to the notice of Provincial Governments, Local Administrations, State Governments and Universities in India and they were asked to communicate their comments and the action proposed to be taken thereon. The information received from these authorities is summarised below.

PROVINCIAL GOVERNMENTS.

Bihar.—The Provincial Government have preferred to reserve their opinion on the question till they have seen the views of the Patna University and have examined the recommendations made by the Bihar Education Reorganisation Committee in this connection. But the Director of Public Instruction, Bihar, agrees with the recommendation of the Education Reorganisation Committee, which is, that there should be only one Matriculation Examination. This does not necessarily entitle a passed student to enter the university, which is left free to prescribe such additional tests or conditions as it may like. The Director of Public Instruction is of the opinion that the success of this scheme will depend on the university insisting on a rigid test of a high standard: if the test is not sufficiently discriminating the scheme may fail.

The Director of Public Instruction suggests that a School Final Examination and a Matriculation Examination sharply differentiated from each other would also attain the same object, viz., diverting a student not really fit for a university career to seek employment or a vocation at an early age. This scheme has, however, already failed in Bihar, for the two examinations were not sufficiently distinct in character.

Bombay.—The question of instituting a School Leaving Certificate covering as wide a field as possible is under consideration at present. It seems likely that the School Leaving Examination Certificate will be accepted by the Bombay University, for specific purposes, if not for all purposes. A further communication will be made when a final decision is reached.

Central Provinces and Berar.—The recommendations of the Central Advisory Board of Education in this respect have been in operation in the Central Provinces since 1935. Only one examination, i.e., the High School Certificate Examination is held every year by the Central Provinces and Berar High School Education Board at the termination of the High School Course. The High School Board have allowed candidates a very wide choice of subjects.

Madras.—At present the candidates who complete the high school course may take either the Secondary School Leaving Certificate Public Examination conducted by the Madras Educational Department or the Matriculation Examination conducted by the Madras and Andhra Universities. Both these examinations qualify for admission to the University courses and to Government service. In practice, however, the number of students appearing in the Matriculation Examination is negligible. For all practical purposes, therefore, there is now only one common examination at the end of the high school course in the province.

As, however, there is a proposal under the consideration of the Universities to have a separate entrance examination for the University Courses, details in regard to which have not been worked out, it is not possible to offer any remarks on it at this stage.

North-West Frontier Province.—A School Leaving Certificate Examination held by the Education Department of the province was in force side by side with the Matriculation Examination conducted by the Punjab University before the year 1922 for about 8 years. This examination had to be discontinued because a large proportion of students wished to take the Punjab University Matriculation Examination, the reason being that the School Leaving Certificate Examination included a *viva voce* test which the Matriculation Examination did not. At present all the High School students take the Matriculation and School Leaving Certificate Examination of the Punjab University.

Orissa.—The Provincial Government consider the recommendations to be sound and agree with the Board that there should be only one examination at the end of the normal high school course. If there is going to be an examination, that examination must be diversified in character, and should cover as wide a field as possible.

Punjab.—The proposal is under the consideration of the University of the Punjab and its decision will be communicated in due course.

Sind.—As Sind has no separate University of its own, the Provincial Government have not offered any views.

United Provinces.—[Theoretically two separate examinations are required, the one for admission to the university being of a somewhat higher standard than the School Leaving Examination. The choice lies between—

- (a) having two complete and separate examinations, and
- (b) having only one general examination, the University supplementing it by a test in a few extra subjects.

Experience, however, shows that where two separate examinations are held, a large bulk of students generally take one of them, and only a negligible number the other. This has been the experience of the United Provinces, and is, it is believed, the experience of Madras and North-West Frontier Province too.

The U. P. Government agree that the School Leaving Examination should have as wide a field of subjects as possible but would deprecate any tendency unduly to restrict the number of subjects that can be offered. Breadth rather than depth should be the object at that stage. If the universities should decide to hold a separate admission examination, the tendency to undue restriction of subjects would, it is feared, be emphasised. An alternative solution would be for the universities to admit only such students as pass out in the higher divisions at the School Leaving Certificate Examination.

Since there is in this province an Intermediate examination between the University and the High School, so long as that examination continues, this question does not arise. But it is doubtful how far the Intermediate Examination is in the best interest of education.]

LOCAL ADMINISTRATIONS.

Ajmer-Merwara.—The Chief Commissioner agrees with the recommendations of the Board.

Baluchistan.—The Chief Commissioner agrees with the recommendations of the Board, but there being no university in the province, no action can be taken.

Delhi.—The Superintendent of Education agrees fully that there should be only one examination at the termination of the normal High School Course. At present, the Board of Secondary Education conduct two examinations, viz., the High School Certificate and School Leaving Certificate Examinations. As the latter has during the last few years failed to attract sufficient number of candidates, a proposal to abolish it is under the consideration of the Board. In the scheme of Reorganisation of Secondary Education drawn up by the Board of Secondary Education, it has been suggested that the courses for the Higher Secondary Examination should cover as wide a field as possible and should be so designed as to provide an approach to the University and an approach to the professions, such as medicine, commercial and secretariat training for employment in higher ministerial employments and other commercial offices.

STATE GOVERNMENTS.

Baroda.—The State Government are in agreement with the recommendations of the Board.

Cochin.—This is a matter for the Madras University to decide so far as the State Examination is concerned. The State School Leaving Certificate Examination offers sufficient scope for entrance to the University.

Hyderabad.—From the point of view of economy and administrative efficiency, it is desirable to have one common examination for all pupils whether they wish to join a University or Service or go in for technical or vocational training. A suggestion is made that in devising the courses of studies the requirements of all classes of pupils should be taken into consideration, as is the case in Hyderabad.

The present position in the State is that there is a dual system of High School Education, the High School Leaving Certificate Scheme and the Osmania Matriculation Scheme. While the holders of both the High School Leaving Certificate and the Osmania Matriculation

Certificate are eligible for service, admission to the colleges is regulated by the conditions laid down by the Madras University and the Osmania University. It has, however, been recently decided to amalgamate the two systems and to have a common course of studies with a public examination at the end of Class X to be conducted by the Board of Secondary Education and to be called the Higher Secondary Examination.

Mysore.—[There is only one public examination at the end of the High Schools course—S. S. L. C. In the University, the minimum qualification for admission to the university courses of study is a pass in the S. S. L. C. Examination, with the minima of marks prescribed for the eligibility for college course of study, or an equivalent examination. The S. S. L. C curricula have been so devised as to permit students to follow on University Diploma courses in vocational subjects such as Engineering, Commerce, etc. There are no two separate examination like S. S. L. C. and Matriculation.]

Travancore.—The University of Travancore agrees with the recommendations of the Board.

UNIVERSITIES IN INDIA.

Agra.—The University agrees with the recommendations of the Board.

Allahabad.—While Secondary Education is outside the purview of the University, the Vice-Chancellor is in general agreement with the recommendations of the Board.

Andhra.—The resolution has been forwarded to the Government. Action is being taken accordingly.

Calcutta.—Recorded.

Delhi.—The University endorses the view that there should be one examination at the termination of the normal high school course.

The present position is that the University has for some time under consideration a scheme of a three-year degree course. The question of the necessary qualifying test for admitting students to this course is intimately connected with the scheme itself. The University is of opinion that the present standard of the Matriculation Examination or any equivalent examination although sufficiently high for admission to the Intermediate Classes where they exist is not adequate as a qualifying test for admission to a three-year degree course. The Board of Secondary Education, Delhi, propose to raise the standard of their High School Examination by one year so that students after passing this examination may be admitted to the three-year degree course of the University.

Lucknow.—The question does not concern Lucknow University as the Matriculation or School Leaving Certificate is not conducted by it.

Madras.—The University informs—

"that in addition to the Matriculation examination conducted by the University there exists also the Secondary School Leaving Certificate Examination conducted by the Provincial Government the results of which examination are recognised for purposes of eligibility to University courses of study in accordance with certain rules of eligibility."

Nagpur.—The University agrees. There is no School Leaving Certificate Examination in the province.

Travancore.—The University agrees.

APPENDIX I (g).

MEMORANDUM ON ITEM VIII OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Views of Provincial Governments, Local Administrations, etc., with regard to the recommendations made by the Board on the question of adopting a uniform system of nomenclature for the designation of teachers in universities and colleges.

At its last meeting held in January 1941, the Central Advisory Board of Education had before it the question of adopting a uniform system of nomenclature throughout India for the designation of teachers in colleges. The Board made the following recommendations:—

- (i) It is most desirable to adopt uniform designations for the teaching staff of universities and of the constituent or affiliated colleges of universities.
- (ii) The indiscriminate use of the title 'Professor' by teachers of all grades in colleges and universities had well-nigh made the term devoid of its essential connotation.
- (iii) The following designations are suggested:—
 - (a) For *University teachers*.—Professor, Reader, Lecturer, Demonstrator and Tutor (the designation 'Tutor' is intended to include a teacher whose contact with students is not limited to the lecture-room but extends to individual teaching and guidance given personally or in the company of not more than two or three students at the same time. It should be made clear that a Tutor need not necessarily be a separate grade of teacher, e.g., a Lecturer may be a Tutor also).
 - (b) For *College teachers*.—Lecturer, Demonstrator and Tutor with such variants or additions as senior or junior Tutor, senior or junior Lecturer.

While the above represents the objective which should be aimed at, it is probable that it can only be achieved progressively. The following additional recommendations are accordingly submitted:—

- (a) That in the transitional period the designation 'Professor' should in no case be given to persons unless:—
 - (i) they occupy a University Chair; or
 - (ii) (in the case of a college teacher) they are of outstanding merit and scholarship and are entrusted with the responsibility of organising and conducting teaching work in a subject to the standard of an Honours or Post-graduate degree (a Board jointly representing Government and University could and should during the transitional period be empowered to decide who are entitled to the status of Professor as above defined).
- (b) That Universities should not henceforward recognise the title of Professor except in the case of persons above described but in the case of present incumbents this principle would have to be applied with a good deal of elasticity and its application should be left to the discretion of the University

Authorities themselves. There are certain institutions which have a quasi-University status, e.g., the Indian Institute of Science, Bangalore. The principle above suggested ought to apply to them as though they were universities. If any dispute arises as to the status of any particular institution, it should be determined by the Government concerned, whose decision should be final.

2. These recommendations were brought to the notice of Provincial Governments, Local Administrations, State Governments and Universities in India and they were asked to communicate their comments and the action proposed to be taken thereon. The information received from these authorities is summarised below:—

PROVINCIAL GOVERNMENTS.

Bihar.—The Provincial Government agree with the Board that the indiscriminate use of the title "Professor" by teachers of all grades in colleges without any reference to their standing in scholarship or educational attainments should be stopped, but they regret that they are not able to accept wholly the designations suggested by the Board as the permanent objective to be aimed at in the matter. According to the principles laid down by the Board the term "Professor" will be restricted to University teachers, but as the Patna University is not a teaching University, no 'Professor' will be left in the province in the event of the acceptance of the Board's recommendation. The Provincial Government accordingly suggest that in order to meet the special conditions in Bihar, solution may be found either on the lines of the designations suggested by the Board for the transitional period or as proposed by the Director of Public Instruction, Bihar, which is mentioned below:—

"There should be definite posts called Professorships or 'Chairs' and only the holders of these posts should be styled 'Professors' irrespective of the pay drawn by them. There should not be more than one or two such posts in each subject in a college. Similarly the other designations such as assistant professors, readers, lecturers, demonstrators and tutors should be reserved for holders of definite posts.".

The Provincial Government have further stated that no change in nomenclature should be attempted in Bihar unless all the provinces in India or at least a majority of them agree to make changes in nomenclature according to accepted principles, as otherwise it might create confusion in relating the standing of teachers in provinces which have changed their nomenclature with those of teachers in provinces which have not done so.

Bombay.—In the Bombay province, the University of Bombay controls post-graduate teaching generally through affiliated colleges, and there are very few University Chairs as such. The question of uniform nomenclature for different members of the staff of affiliated colleges was considered by the Syndicate of the Bombay University in July 1941, who are in favour of the adoption of uniform designations for the teaching staff of universities and of constituent and affiliated colleges. The Syndicate has suggested, and the Provincial Government endorse the suggestion, that the question should be examined further by the Inter-University Board.

In the affiliated colleges, where teachers are indiscriminately called 'Professors' the position is very disturbing, but in respect of Government colleges the following principles are at present followed in the province.

- (1) All members of the Indian Educational Service and Bombay Educational Service Class I should retain their designation of 'Professor'.
- (2) In the case of Bombay Educational Service Class II Officers and contract posts of a gazetted status the designation 'Professor' should be extended to those of ten years standing: and to those—
 - (a) that are heads of departments in the subjects or post-graduate degree courses, or
 - (b) that are in charge of laboratories for degree courses, or
 - (c) that are in charge of a subject for a post-graduate degree.

Madras.—The Provincial Government agree generally with the following views expressed by their Director of Public Instruction:—

"In Arts and Science Colleges managed by Government, members of the staff are designated Lecturer, Assistant Lecturer, Pandit or Munshi, Tutor and Demonstrator. The title Professor and Assistant Professor is not used in Government Arts and Science colleges, the only exception being the Presidency College founded in 1840 as a college of quasi-University status—it having acquired through old practice a prescriptive right to designate certain members of its staff as Professors, which title is, however, only given in the way approved by the Board, i.e., to teachers of outstanding merit and scholarship who are entrusted with the responsibility of organising and conducting teaching work in a subject to the standard of an Honours or Post-Graduate degree". In Professional Colleges, it is customary to designate as 'Professor' the head of a department, as they are highly qualified professional men.

The Director of Public Instruction has recommended that the title professor should not be used in any college which teaches only to the Pass Degree standard, its use being confined to (a) Institution of quasi-University foundation or status, (b) to designate in other colleges certain teachers of outstanding merit and scholarship who are entrusted with the responsibility of organising and conducting teaching work in a subject to the standard of an Honours or Post-Graduate degree, (c) teachers in Universities who occupy a University Chair.

North-West Frontier Province.—As there is no university in the North-West Frontier Province, all the three colleges being affiliated to the Punjab University, any action taken by the Punjab University in this connection will automatically apply to the institutions affiliated to it.

Orissa.—The colleges in Orissa are either under Patna University or under the Andhra University. It is not possible for the Provincial Government to take any action in the matter unless the Universities concerned adopt uniform designations for the teaching staff of colleges or until Orissa has a University of her own.

Punjab.—The Provincial Government have decided to adopt the following designations for the teaching staff in Government colleges:—

- (i) All members of the I. E. S. and P. E. S. (Class I) serving in colleges will be designated as Professors.
- (ii) All P. E. S. (Class II) Officers serving in colleges as "Senior Lecturers".
- (iii) All S. E. S officers serving in colleges as "Lecturers".
- (iv) The designation of Demonstrators and Physical Training Supervisors to continue as at present.
- (v) When a professor or a lecturer is in-charge of a department in a college, he may have the additional designation (within the college only) of "Head of the department of a particular subject".

Sind.—There being no university in the Province, the Provincial Government have not found it necessary to consider the question.

United Provinces.—[This Government generally agree with the principles enunciated by the Board. The practice of the Allahabad University is in conformity with them. Lucknow, Benares, and Aligarh Universities agree generally and would welcome a uniform system.

Agra University presents a more difficult problem. It is an affiliating and examining University, with a number of colleges spread over United Provinces, Central India and Ajmer, most of which have post graduate classes of an advanced standard. At present the head of each section in these colleges is designated as Professor. The United Provinces Government consider that these heads of departments should continue to be so designated as Professors, (permanently, not merely as a transitional provision), provided that certain conditions are fulfilled, such as—

- (1) they must be actually teaching post graduate classes,
- (2) they must have attained a certain seniority, say ten years of teaching experience,
- (3) they should be of high merit,
- (4) there must be a responsible body with power to decide the claim of a teacher to be designated as Professor.

As it is obviously desirable to secure uniformity throughout the country, it would perhaps be advantageous to have the details worked out by the Inter-University Board.]

LOCAL ADMINISTRATIONS :

Ajmer-Merwara.—The Chief Commissioner agrees that there are advantages in uniformity of nomenclature for college teachers, but he would confine the term 'Professor' solely to teachers in University colleges of degree standard.

Baluchistan.—The local administration proposes to follow the principles laid down by the Board, for the proposed Intermediate College at Quetta which is to be known as the Higher Grade Secondary School, and the staff will be teachers and not 'Professors'.

[Information not received in time for placing before the meeting of the Board.

Delhi.—The Superintendent of Education is in agreement with the Board that it is necessary to have a uniform system of nomenclature for the designation of teachers in colleges. Those teaching degree classes and above should be designated 'Professors', specially when they are heads of Departments. Heads of departments in a University should be called 'University Professors'. Other members of the teaching staff of colleges should be designated as "Lecturers" while those doing tutorial work on the Arts side should be termed "Tutors" and those doing demonstration work on the Science side should be called "Demonstrators".

STATE GOVERNMENTS.

Baroda.—The State Government are in agreement with the recommendations of the Board.

Cochin.—The State Government accept the suggestions of the Board.

Hyderabad.—The Nizam's Government accept the conclusions reached by the Board.

Travancore.—The State Government share the views expressed by the University of Travancore.

UNIVERSITIES IN INDIA.

Agra.—The University being purely affiliating, without any teaching staff of its own, it has no opinion to offer in the matter.

Allahabad.—The designations of different classes of teacher, in the University, viz., Professor, Reader, Lecturer, are in conformity with the suggestions made by the Board.

Andhra.—It is desirable to adopt uniform designations for the teaching staff of Universities and of the constituent or affiliated colleges of the Universities. This University has already referred the matter to the Government and the affiliated colleges.

Calcutta.—The University agrees with the Board.

Delhi.—The University endorses the views of the Board and has decided to give immediate effect to them.

Lucknow.—Recorded.

Mysore.—[The teachers in Arts and Science Colleges in the University are given only three designations, Professor, Assistant Professor and Lecturer.]

Nagpur.—A committee has been appointed to consider the subject.

Travancore.—The University agrees that it is desirable to adopt uniform designations for the teaching staff of universities and colleges, and that the designation "Professor" should not be indiscriminately used as at present. The University is willing to adopt the suggestions of the Board, provided other Universities are also agreeable.

[] Information received after the meeting of the Board.

APPENDIX I (h).

MEMORANDUM ON ITEM IX OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Views of the Provincial Governments, etc., regarding the suggestion of the Board in respect of the inclusion of practical hygiene in the courses for teachers in training colleges and training schools.

At its last meeting held in January 1911, the Central Advisory Board of Education had before it the question what practical steps could be taken by Education Authorities in co-operation with Public Health Authorities to improve the physical condition of school children. The Board suggested *inter alia* that a considerable advance might be made if the courses for teachers in training colleges and schools were expanded to include training in practical hygiene.

2. This recommendation was brought to the notice of Provincial Governments, Local Administrations and State Governments, and they were asked to intimate the action which they proposed to take on it. The information received from these authorities is summarised below.

PROVINCIAL GOVERNMENTS.

Bihar.—At present hygiene forms a part of the compulsory subject "school management and hygiene" in the syllabus for training schools, while in training colleges "Hygiene of the School Child" is a paper in the Diploma in Education Examination.

Bombay.—Instruction in health and hygiene is imparted in primary schools through lessons in the Readers used in these schools. Every child completing the elementary course gets some general information regarding cleanliness and healthy living. Hygiene is also included in the revised syllabus of studies for primary schools, and is one of the subjects for the Primary School Leaving Examination. In the Training Institutions for men and women primary teachers there is already provision for the teaching of hygiene. The subject has also been included among those taught in secondary schools. In the course of studies for the Training Institute for Physical Education, 'Hygiene and Sanitation' have been included. In the Training Colleges for secondary teachers, the subject is included in the paper on 'Practices in Education'. Apart from school work, lectures illustrated by lantern slides are also given by Inspecting Officers on topics connected with health, hygiene and sanitation.

Central Provinces and Berar.—The courses in physical education at training institutions now include hygiene of a more practical nature and there is a noticeable change for the better in the attitude of teachers, and pupils in most schools.

Since 1937, practical hygiene has been a compulsory subject in the curriculum of primary schools. The course has been made still more practical in the Normal schools. In the Training College, it is now a subject of examination for both the B. T. degree and the Diploma of Teaching of the Nagpur University.

As a result, teachers of all grades are gradually becoming hygiene-minded.

Madras.—Training in practical hygiene is already included in the courses for teachers in training colleges and schools in the Presidency. Instruction in health, nutrition and first-aid forms part of the curriculum of training schools for teachers. Practical work in connection with instruction in health is also done in higher elementary training schools. For the L. T. course of the University of Madras, 'Children's diet', 'clothing', 'cleanliness', 'fatigue', 'training the child in the practice of hygiene', 'common ailments', 'first aid in minor injuries', 'health legislation affecting schools', etc., form part of the syllabus.

North-West Frontier Province.—The recommendation of the Board is already in force in the province. First Aid and hygiene classes are held every year in all secondary and training schools, instruction being given by fully qualified doctors. Examinations are held and certificates awarded by the Red Cross Society.

Orissa.—Doctor teachers with L. M. P. qualifications have been appointed in certain Government high schools who were deputed to undergo training in nutrition at Coonoor in Madras. They have been put in-charge of teaching Hygiene. Their special function is to awaken health consciousness in the students and to lay stress on the preventive than on the curative side of health. In secondary training schools and high schools in South Orissa there are qualified physical training instructors trained in Madras.

Punjab.—Training in practical hygiene is included in the courses of study in training schools and colleges in the province.

Sind.—Instruction in Physiology and Hygiene is already being imparted in training institutions in the province.

United Provinces.—There are in the province three Superintendents of Physical Training and an assistant master who perform similar duties. These have been specially trained, two at Dunfermline, one in Denmark and one in Madras. The superintendents train all pupil teachers in the three Government Training Colleges in U. P. so as to fit them to superintend the Physical Training when appointed in a school. The Superintendents hold two special courses of six weeks each for the purpose of training assistant masters in Anglo-Vernacular schools and teachers from Vernacular schools in Physical Training in accordance with the Department's graded syllabus. The Lucknow Christian College has a college of Physical Education attached to it which turns out well trained physical training teachers after a two years course and these are finding employment in various schools. Teachers from Anglo-Vernacular institution are at present being given 8 months' training in agility exercises with apparatus at this college to provide for the introduction of these exercises in the higher classes of High Schools and Intermediate Colleges. This course is arranged by the department and an instructor trained in Denmark has been deputed by the Department to take charge.

The girls have also not been ignored and to develop physical training on modern lines among them, some teachers have been and are being trained at the Women's College of Physical Education at Calcutta.

Several Physical Education Committees have been appointed from time to time to draw up syllabuses but the control remains in the hands of the Department who have prescribed a syllabus.

The teachers from the recognised Anglo-Vernacular institutions are being trained at the College of Physical Education, Lucknow. So far two teachers per Government institution have been trained from almost all the Government Anglo-Vernacular institutions. The last batch of Government school teachers joined the College on October 6, 1941, and the training of aided High School teachers will commence from January next. For ordinary physical training specially qualified teachers are appointed in schools and colleges and it is proposed to replace drill instructors by assistant masters of physical training.

No academic qualifications are prescribed so far for these teachers but it will be at least High School for Anglo-Vernacular Schools. All teachers of Physical Training in Anglo-Vernacular schools must have passed a course in Physical Training. Teachers for primary and secondary vernacular schools are trained every year by the three superintendents and the assistant master of Physical Education at two refresher courses.

For primary schools the teachers are now practically all trained. All pupil teachers in Normal and Training Schools are instructed in Physical Training. No Physical Instructors are recruited from outside the Province.]

LOCAL ADMINISTRATIONS.

Ajmer-Merwara.—The Board of High School and Intermediate Education, Rajputana (including Ajmer-Merwara), Central India and Gwalior has recently introduced the teaching of Anatomy, Physiology and Hygiene in high school classes as a compulsory subject. In rural schools, lectures on the subject are delivered by Sub-Assistant Surgeons in-charge of Government Dispensaries, wherever such facilities are available.

Baluchistan.—There being no institution in Baluchistan for the training of teachers, no action can be taken in the matter.

Delhi.—Training in Hygiene is imparted in all schools at present, but it is not a compulsory subject in the high departments.

STATE GOVERNMENTS.

Baroda.—The State Government are in agreement with the recommendation of the Board.

Hyderabad.—Great importance is already attached to the study of Hygiene.

Travancore.—*The course in practical hygiene has been included in the syllabus for the L. T. Degree examination of the Travancore University.

APPENDIX I (i).

MEMORANDUM ON THE ITEM X OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Excision of undesirable passages from text-books prescribed for University studies.

At the fifth meeting of the Central Advisory Board of Education held in May 1940, the question whether what might be described as undesirable passages should be excised from text-books prescribed for university studies was raised, and it was decided to refer it to the Inter-University

[] Information not received in time for placing before the meeting of the Board.

*Information received after the meeting of the Board.

Board for an expression of opinion. At the last meeting held in January 1941, it was reported to the Board that the Secretary of the Inter-University Board, who was addressed in the matter, had replied that the question would be considered at the meeting to be held on the 15th and 16th January 1941.

The following resolution was then adopted by the Board—

"The Board strongly recommends that all obscene and erotic passages should be omitted from the text-books prescribed for courses of study in all the subjects."

2. This resolution has been forwarded to all Universities. It is not yet known what action they have taken or propose to take in the matter.

APPENDIX I (j).

MEMORANDUM ON ITEM VI OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Reports from Provincial Governments regarding the recommendation made by the Board on the need for arranging specific instruction in schools on the subject of 'Kindness to animals'.

At its last meeting held in January 1941, the Central Advisory Board of Education agreed to commend the need for arranging specific instruction in schools on the subject of "Kindness to animals" to the attention of Provincial Governments, Local Administrations and State Governments who were asked to forward their comments and to intimate the action proposed to be taken thereon. The replies received from these authorities have been summarised for the information of the Board.

PROVINCIAL GOVERNMENTS.

Bihar.—[In order to give practical effect to the recommendation of the Central Advisory Board of Education for imparting instruction on the subject of 'kindness to animals' in schools of this province, the Provincial Government have decided—

- (1) that the language readers and other appropriate readers prescribed by the Text Book Committee must contain reading matters dealing with kindness to animals and exhortation against cruelty to them. For this purpose necessary instruction will be issued to the Text-Book Committee not to approve a book which does not contain, say, at least 5 pages of reading matter of this kind. This will be done very gradually so that the publishers may have due notice of the orders and existing books may not be rendered useless.
- (2) that the subject should also be frequently discussed in the school debating societies, essay clubs, etc., and the teacher should encourage boys to report to them any instances of cruelty to animals which they may come across, and seek their advice as to the best way of preventing such cruelty so that boys may observe instances of cruelty and think on the possible way of preventing them.
- (3) that pictures on 'kindness to animals' should be hung up in class rooms.

- (4) that scouts and members of the Junior Red Cross Society should be asked to report cases of cruelty to animals to the Police and the Inspectors of the Society for the Prevention of Cruelty to Animals.
- (5) that in primary schools, stories about kindness to animals should be told, and in secondary schools, good treatment of animals should form a part of hygiene lectures.
- (6) that the 'Society for the Prevention of Cruelty to Animals' should be asked to arrange for lectures on 'kindness to animals' at suitably selected schools, which are centrally situated, students from neighbouring schools also attending].

Bombay.—The language readers in primary and secondary middle schools in the province usually contain a good deal of material which refers to the subject of kindness to animals. Emphasis is laid on the subject indirectly. It does not seem possible to do anything more in this connection.

Central Provinces and Berar.—“Kindness to animals” and “Care of pets” are now included under the head, ‘citizenship’, which is a compulsory subject in the curriculum for primary schools. The subject is also included in the revised syllabus for Normal Schools, and dealt with in the same syllabus as Animal Husbandry.

Madras.—In the Presidency the subject “Kindness to animals” is taught in primary and middle ('elementary') schools in the moral instruction classes. In secondary schools also, it is included in the syllabus for moral instruction. The Society for the Prevention of Cruelty to Animals have published books on the subject and many of these have been approved by the Text-Book Committee for class use. In text-books in Indian languages, lessons on “Kindness to animals” are included for most of the classes.

North-West Frontier Province.—Societies for the prevention of cruelty to animals exist in several cantonments of the province, and members largely belong to the teaching profession and to the Police Force. The boy scouts are now forming associations of their own in different parts of the province, and it is hoped that systematic steps will be taken to prevent cruelty to animals and to get wounded animals properly treated in the Veterinary hospitals.

Orissa.—The Provincial Government have taken note of the views of the Board on the subject. The matter will be considered by them in due course.

Punjab.—Necessary provision relating to animal life, proper care of domestic animals, etc., has been made in the revised scheme of studies for the primary and middle classes of recognised schools for boys and girls in the province. The books suggested on page 58 of the Proceedings of the Sixth meeting of the Central Advisory Board of Education will be kept in view when prescribing books for schools under the revised scheme.

Sind.—Instructions are being issued to the Heads of schools in Sind to give lectures on the subject of “Kindness to animals” to their pupils and to take them to Veterinary Hospitals occasionally.

United Provinces.—[A world day for animals is observed in Anglo-Vernacular Middle and High Schools and Intermediate Colleges in the United Provinces on October 4 each year and teachers deliver lectures to their classes on kindness to animals on that day. Discourse and debates are held in schools, posters, slogans and mottos are prepared and hung in prominent places. Poems are written and read out to the audience. Some schools even supply fodder and food to starving animals. These and other methods are employed in showing kindness to animals.]

LOCAL ADMINISTRATIONS.

Ajmer-Merwara.—No regular arrangement obtains in any school for imparting instructions on the subject of "Kindness to animals". In the case of girls' schools, lectures are delivered on the subject in connection with the Girl Guides movement and in boys' schools, too, such lectures are occasionally delivered. It is proposed to take early steps to include this subject in extra-curricular activities.

Baluchistan.—This question was discussed at the annual conference of Head Masters and Head Mistresses in March 1941 and the subject "Kindness to animals" is now included in the syllabus in primary schools.

Delhi.—The Secretary, Delhi Society for the Prevention of Cruelty to Animals, who was consulted in the matter, has no comments to make. She, however, suggests that in communications addressed to various authorities, the Central Advisory Board might employ the expression "Humane Teaching" used in Appendix I (j) and not the expression "Kindness to Animals" used in paragraph 14 of the Report, as the former expression brings out the wider values of the subject as a contribution to character building.

STATE GOVERNMENTS.

Baroda.—The State Education Department are arranging to include in the vernacular reading series some lessons on the subject of "Kindness to Animals".

Cochin.—A lesson on the subject of "Kindness to Animals" is proposed to be included in the Malayalam texts of classes III and IV and of Forms I to III.

Hyderabad.—Religion or Ethics is a subject of study for all pupils and "Kindness to Animals" is a topic included in these subjects. The students of nearly all the Secondary schools at Headquarters compete for the essay, with a prize of Rs. 50 offered annually by the local Society for the Prevention of Cruelty to Animals.

Travancore.—[Government do not consider it necessary to impart instruction separately on the subject since the text books in general and Nature study books in particular in schools contain lessons on animals.]

[] Information received after the meeting of the Board.

APPENDIX 1 (E).

MEMORANDUM ON ITEM XV OF THE AGENDA PLEACHED BEFORE THE GENERAL ADVISORY BOARD OF EDUCATION.

(*Note by Dr. Sir Zia-ud-Din Ahmad on 'Examination'.*)

The report of the Examination Enquiry Committee instated under the aegis of the New Education Fellowship has revealed that there existed general discontentment in every country in the world about the system of examinations. The Committee recommended Sir Michael Sadler's suggestion that the Government or some Corporation should appoint a Commission for a term of year to inquire into the working of the examination system.

In the Fifth World Conference held in Denmark in August 1929, practically unanimous dissatisfaction with the examination system conducted in their respective countries, was expressed by the delegates. The overwhelming majority were strongly critical of the prevailing systems; many representatives feeling that any real educational advance will be difficult if not impossible, until existing examination systems are abolished or reformed. It was freely recognised that conditions differed widely in different countries and that no single scheme could be applied to all.

There is a general belief in this country that persons turned out by the old schools were more thorough and that the knowledge of students now produced by modern schools and colleges is superficial and sometimes defective. This superficiality is due not so much to the Western method of education as to the Indian system of teaching and examination. Teaching is subordinated here entirely to examination. An Indian examiner whose judgment is controlled by a set of elaborate rules has to give 40 per cent., i.e., second class marks to a candidate who makes three mistakes out of every five in addition, though such a candidate in spite of a certificate has no market value in business.

The method of judging the ability of a candidate by adding the marks obtained by him in the different questions of the examination paper written within a limited time, is misleading and pernicious. No two persons agree in their perception of valuing the answers. Even the same person values the same answer differently at different times. The variation is very great and at times amounts to so much as 400 per cent.

The English Committee appointed by the International Conference on Examinations held at Eastbourne in 1931 reported the following case. "Fourteen experienced examiners re-marked independently fifteen scripts which had all received the same mark from the examining authority by which they were furnished. These examiners between them allotted over forty different marks to the several scripts. It was found further that when these examiners re-marked once more the same script after intervals of between twelve and nineteen months, they changed their minds as to the verdict of pass, fail and credit in 92 cases out of the total of 210."

There exists at present universal discontentment against examinations as 'they are now conducted. What then is the remedy? No abolition, but radical alteration after scientific enquiry. Examinations are necessary and inevitable, but they have unfortunately been misapplied and have

become pedantically mechanical in their assessment of excellence. The entire system should be thoroughly examined and its defects removed. "Let us watch scientifically what is going on", says Sir Michael Sadler, "record what we find and analyse the water that is moving under the buildings of education. It is the water of human life. Scientific enquiry and report is what the present state of affairs requires."

There are three main systems of examinations followed in various countries excluding the intelligence test which has not been developed scientifically, but it has great possibilities especially in the selection of soldiers and workmen who have not received any training in secondary schools.

The first is the system with which we are familiar and which is prevalent in all the English-speaking countries. Its prevailing idea is to maintain secrecy at every stage. The examiners and examinees do not know each other, the names of the examinees are kept confidential and candidates are forbidden to write their names on the answer books. In some universities, even the actual roll numbers of candidates are kept confidential from the examiners, and fictitious roll numbers are given by the Registrar. Some examining bodies of India, however, require the students to write their names on answer-books so that the answer-book of a candidate, who forgets to write his roll number, may be identified. Educational bodies as well as private individuals have often criticised this practice. The examining authorities have interpreted these criticisms as a censure on the honesty of examiners. The practice of keeping the names of examinees confidential is an essential feature of this system and does not imply any charge of moral delinquency against the examiner or the examinee. In this system the same questions are asked at every centre and the results are announced by adding the marks given for each question.

The second is the system prevalent in French-speaking countries. The examinations are not conducted by one central authority and printed papers are not sent out to each centre of examination; an Examination Board is appointed for each examination centre and the members of the Board conduct the examination locally. The President of the Board brings the question papers in a sealed envelope and the questions are dictated to the candidates in the examination hall. Usually the paper contains three questions which are not all compulsory. The answers of the candidates are not kept confidential. Every answer-book is examined by at least two members of the Board and the public has access to the written answer papers of the candidates. No secrecy is kept at any stage of examination. In all examinations candidates are examined both orally and in writing and the written work is more a test of intelligence than of memory. Results are announced almost immediately. The examinations are held twice a year. The students who fail but have achieved pre-scribed standard are examined a second time by the same examining board after the long vacation and before the beginning of the next academic Session.

The third is the old Indian system of examination which has been adopted in a modified form by all German-speaking countries. In this system monthly terminal or annual examinations do not exist. Promotion is given on the report of the teachers. The opinions of teachers are expressed according to the Oxford system in letters and further classifications are indicated by using the signs of plus and minus. The University examinations consist of a dissertation and an oral test. There is no written examination. The School Final Examination called *abiturienten*

is conducted by the Headmaster in the presence of the Inspector of Schools. This system avoids the element of chance and eliminates variation of perception. - The Government of India in the Educational Policy of 1904 said :—

" Examinations as now understood are believed to have been unknown as an instrument of general education in Ancient India, nor do they figure prominently in the Despatch of 1854. In recent years they have grown to extravagant dimensions and their influence has been allowed to dominate the whole system of education in India, with the result that instruction is confined within the rigid frame-work of prescribed courses, that all forms of training which do not admit of being tested by examinations are liable to be neglected."

It is neither possible nor desirable to end the present fabric of examinations. We should mend the system after careful study. Professor Edgeworth studied in a scientific manner the system of examinations. A summary of his researches is given in a memorandum by Sir Philip Hartog and myself and it is published in Volume VI of the report of the Calcutta University Commission. There are certain unavoidable examination errors which even a perfect system cannot avoid. He classifies these errors and styles them as :—

- (a) Errors due to "minimum sensible";
- (b) Deviation errors;
- (c) Errors due to difference of scale;
- (d) Deviation due to speed;
- (e) Errors due to the fatigue of the examiner.

The errors due to these five causes have been numerically calculated. The aggregate error due to the five above-mentioned causes, including the error due to speed, is 7.5 per cent. The application of the principle to ordinary examination was discussed in the memorandum quoted above. "In a well conducted examination in which there are four subjects and in each subjects there are two papers of 50 marks each and a student is expected to obtain 182 marks or 38 per cent in the aggregate, the error is 3 and it is 5 if papers are not leisurely examined. By these considerations we have come to the conclusion that a student who failed in the above examination by not more than one mark in two subjects and by not more than 2 in the aggregate, may have his 'true' marks within the minimum required, and a student who has failed by not more than two marks in two subjects should have his papers re-examined for detection of errors due to speed."

These unavoidable errors can partially be corrected by the system of 'grace marks' which was originally introduced as a compensation in one subject for the efficiency in other subjects. These grace marks rules need closer and scientific study. Grace marks are usually allowed to a limit of 5 marks if a candidate fails only in one subject provided his aggregate exceeds the minimum by a certain number; but no grace marks are given if he fails by one mark in two subjects. It is very desirable that the system of grace marks should be examined scientifically and the method may be devised which may serve the double purpose, i.e., compensation in one subject for efficiency in other subjects and to equate unavoidable examination errors.

In the absence of a machinery to deal with border-line cases by means of oral tests, examination of school records, or automatic re-examination of answer-books by a panel of examiners, the award of grace marks is the only machinery which deals with border-line cases. The Board of S. L. C. Examination of the United Provinces in the year 1919 framed grace marks rules on these principles. These rules were not adopted by any other examining authority and they were dropped in the United Provinces as soon as the New Intermediate Education Board came into existence. In addition to unavoidable examination errors, the other main difficulties which our present system has to face are:—

- (a) idiosyncrasies of examiners;
- (b) difference of perception;
- (c) difference of standard of sub-examiners in the same subject and in a competitive examination, the difference of standard in alternative subjects.

(a) *Idiosyncrasies of examiners.*—In a University examination some years ago an examiner gave the same marks to all candidates whose names appeared on a particular page of the mark book. Good students whose names happened to be on an unfortunate page obtained very low marks and failed and undeserving candidates obtained first class marks. The Principals of Colleges and Members of the Senate drew the attention of the University as it was obligatory to pass in that paper. It was pleaded that the University had no power either to alter the marks once given by the examiner or to have the answer-books re-examined by a different examiner. The University excluded the examiner from future examinations but it was a poor consolation to the candidates who failed by the eccentric action of the examiner. I do not like to multiply other cases of the same type, and it seems desirable that in such extreme cases the powers should be given to the Vice-Chancellors or the Presidents of the examining authorities to get the papers re-examined and the marks revised.

(b) *Perception of examiners.*—There exists great divergence in the perception of examiners. Variations in marking due to the divergence in the perception of examiners are abnormal. This variation was examined by several persons. Dr. Ballard in "Human Nature of Education" quoted the following:—

"In an examination in History in the year 1920, the papers were evaluated by six professors of History working a panel. One of the professors, who was exceedingly conscientious, began by writing out what he considered model answers to the questions, but inadvertently his model answer-papers got mixed up with the papers of those whom he had ploughed and was sent round to the other five professors for their appraisal. His paper was read by them as a *bona fide* answer-paper of an examinee, and some of his colleagues ploughed him, the marks ranging all the way from 40 to 80."

Professor Edgeworth gave several illustrations of the difference of perception. He published answers to a paper on Latin composition and invited leading educationists to mark them. In response to his appeal twenty-eight highly competent examiners marked the answer-book and the actual

marks allotted by them were 45, 50, 67.5, 70, 70, 72.5, 75, 75, 75, 75, 75, 75, 77, 80, 80, 80, 80, 82, 82, 85, 85, 87.5, 88, 90, 100, 100. The two highest awards, it will be seen, were more than double the minimum award. Sir Philip Hartog in his book on "Examination of Examinations" has given a number of examples of the abnormal difference in the perception of examiners. I give only one table from his book showing the number of awards by 7 different examiners.

Examiner	Fail	Pass	Credit.	Special Credit.	Total.
A . .	1	16	27	4	48
B . .	..	2	34	12	48
C . . .	7	30	11	..	48
D . . .	..	9	36	3	48
E	5	16	27	..	48
F	2	7	37	2	48
G	19	12	17	..	48

The deviation in the award of the examiners B and G is remarkable. From the figures by Sir Philip Hartog we notice that the numerical marks given to individual candidates by different examiners although varied enormously but the averages of marks awarded by each examiner were close together.

In India the experiments have not been made on a large scale, but Mr. Kuppaswami has published statistics in the Education Supplement of the *Hindu* (21st December 1931)—He sent the same answer-books to 46 different examiners all of whom were experienced examiners. He expressed the abnormal variation in marking an exaggerated form, and said that no serious injustice would be done to the candidates if the marks allotted to them are simply drawn out of a ballot-box. Professor Edgeworth was of opinion that majority of successful candidates cannot be regarded as quite safe and above the danger of coming out unsuccessful if a different sort of equally competent examiners had happened to be appointed.

The secrecy of examination at every stage and the belief of examiners that the marks allotted by them will not be scrutinised by any authority have very much aggravated the evils in India. Variation in marking is not confined to written papers but it also exists in *viva voce* examination. An interesting experiment was made in 1933 in England. A prize of £100 was notified to the best candidate in *viva voce* examination. Sixteen candidates all holding university degrees offered themselves for examination. Two Boards each consisting of five highly qualified examiners were appointed to conduct *viva voce* examination and rules were framed for

conducting the examination. The order of merit given by these Boards to sixteen candidates was as follows:—

Candidate.	Result Board I.	Result Board II.
1	16½	11
2	1	13
3	14	15½
4	4	2
5	8½	7½
6	12	3
7	11	1
8	2	9
9	4	10
10	8½	6
11	8½	5
12	4	7½
13	16½	14
14	8½	4
15	6	12
16	13	15½

NOTE.—Fractions indicate bracketed candidates.

It is remarkable that the first candidate selected by Board I obtained thirteenth position in the list of Board II and the first candidate of Board II could only secure eleventh place.

The problem of difference in perception should be more closely studied and the training colleges may be invited to carry on more experiments. It is highly desirable that every answer-book should be examined at least by two examiners and the mean of the marks given by the two examiners should be taken as true marks. In cases of abnormal difference in the marking of two examiners, the answer-book should be examined by the head examiner.

To avoid these errors the Americans have devised a new system in which every question can be answered only in one way. The examiner analyses the questions before examination, and each part is put in the form of a separate question. The answer is either correct or incorrect. It is very often in the form of yes or no. For instance:

- (1) Is Hydrogen liquid, solid or gas?
- (2) What is its colour?
- (3) Does it burn in air?
- (4) Is it heavier than air?
- (5) What substance is formed when it burns?

The greatest advocate of this method in India was Mr. Hammil, but it never became popular. The defects in the system are that we cannot examine the power of expression nor the power of analysing the subject, which is done by the examiner himself.

A peculiar feature of our examinations as developed in this country is that the cramming of printed notes and compendium has become essential for success; and this fact is officially recognised. A few weeks before the examinations, students are allowed "Preparation leave", extending from two to six weeks, to allow the students to sit in their rooms and cram the notes. Some students do not purchase the texts, but they cram the notes and answers of typical questions. The process of cramming extends even to post-graduate examinations.

(c) *Difference in standard.*—In large examinations a number of sub-examiners are appointed, and their number in some cases exceeds 35. The problem of maintaining uniformity in the marking of these sub-examiners has now become very difficult. Professor Edgeworth studied this problem and he calculated the marking of the 'mean examiner', and compared the marking of other sub-examiners by comparing their graphs. Professor Hartog and myself applied his principles to the Matriculation Examinations of Indian Universities and our results are published in Volume VI of the Calcutta University Commission's Report. We attempted to find a formula by which the marking of a sub-examiner can be reduced to the marking of the 'mean examiner'. I applied the method established in the memorandum to the S. L. C. Examination conducted by the U. P. Secondary Education Board and I found that the increase or decrease of marks arrived at by the study of graphs were the same as we found by actual reading of a number of examination books. The formula, for the adjustment of marks established by objective method was verified by subjective test. This method although more scientific and more accurate was given up on account of the delay in the tabulation of the results. But it seems very desirable that the question should be closely examined and marked discrepancies between the standard of various sub-examiners should be minimised.

Terri Thomas, Crofts and Jones applied this method to the adjustment of marks among various subjects. They made the marks in all the subjects conform either to arbitrary curve taken as a standard curve or to a mean curve. The adjustment of marks among various subjects is very important in competitive examinations where the students have to take alternative subjects. It is rather important that in all examinations conducted by the Public Service Commissions uniform standard should be maintained in the alternative subjects and variations in the standard of the same subject should not be abnormal from year to year. This subject requires closer study. There are other points about competitive examinations which require investigations or the public will lose confidence in their efficiency.

Recruitment for public posts by competitive examination was first introduced in England in the year 1854. The first public competitive examination for the Royal Military Academy took place in 1855, and in 1870 the principle of open competitions for the Civil Service was adopted as a rule. All the shortcomings inherent in the system of examinations are found in competitive examinations.

"If we turn to competitive examinations", says Sir Philip Hartog, "we find that they involve all the same problems, and fresh ones to boot."

Professor Edgeworth came to the conclusion after careful study of the statistics, that "the distinction between adjacent candidates at such examinations, as arranged in accordance with the marks allotted, is in hardly any case of a real superiority."

In certain examinations the Public Service Commission weeds out the candidates in an arbitrary manner. It gives permission to sit in examination to only those students who passed B.A. examination in the first division, and in special cases to the students who passed in the second division. On account of great disparity in the standard of first division in various universities such selection becomes artificial.

Public Service Commission sometimes conducts what is called semi-competitive examinations. The Commission has in such cases to face three difficulties:—

- (a) It has to define the purpose of the Examination—not only what a successful candidate can do, but also, what he is capable of doing after training.
- (b) It has to define the minimum qualifications and translate the same into numerical numbers.
- (c) It has to devise methods by which the elements of chance may be minimised and border-line cases treated equitably.

Sir Philip Hartog suggested that answer-books of the candidates who lie on the border-line and of those who secure higher standard should be published periodically. Professor Edgeworth has also emphasised periodical scrutiny and overhauling of competitive examinations and he expresses the ideas in the following words:—"What should we think of a company, who, dealing in thousands and millions sterling, grudged the payment of a professional accountant to check the accounts of the Directors. It should be a similarly false economy on the part of educated society, considering the stupendous sum of mental labour involved in the system of competitive examinations, to grudge the expenditure of a little additional effort on a technique, which proposes to bring to book and to test the figures of the examining bodies who are responsible for the direction of that labour."

The Calcutta University Commission also emphasised periodical scrutiny and recommended the establishment of the Boards of Examinations which were to serve "as the auditors of the examination system, and as the conscience of the universities". They were to publish typical specimens of complete examination answers. They were to maintain continuousness upon the method and use of examinations and to ensure that they were not so mechanically conducted as to exercise a harmful influence upon teaching and study. These Boards were intended to be similar to the one recently set up by the Board of Education in England.

The examinations play a very important part in controlling education and in selection of candidates for public service, but unfortunately no attempt has yet been made in this country to scrutinise and remove its evils. The Central Advisory Board of Education is the only body which is in a position to lead. It seems desirable to appoint a Committee which may initiate the study of various problems connected with examinations. Its terms of reference may include among others the following points:—

- (1) *The method of minimising the elements of chance due to difference in perception and other causes.*—A suggestion is that every answer-book

should be examined at least by two examiners and a head examiner should settle the causes of marked discrepancies. Sir Philip Hartog has quoted several cases in his book on "Examination of Examinations" showing that the deviation in the marking of six examiners is much greater than the deviations of the same examiners acting in 3 pairs. The examination by two examiners even in large examinations can be carried out smoothly without serious dislocation of the existing machinery.

(2) *Award of marks in symbols.*—The manner of awarding numerical marks may be replaced by symbols. It is humanly impossible to determine the numerical marks within a certain limit and the person who obtained highest marks in any of the examinations by adding the total of each question is not necessarily the best candidate. We can group the students, but the numerical classification in that group is not possible. Professor Edgeworth recommended "that in all cases, where marks obtained by the candidates fall within the limits of uncertainty, vacant places should be allotable by drawing lots, each candidate receiving a number of tickets proportional to the chance calculated by the theory of probability. Such proposal would mitigate the sense of injustice in disappointed candidates and do more to bring home to the mind the arbitrary character of examinations than even an article in the Journal of the Royal Statistical Society". The most satisfactory solution is to give up numerical marking and adopt Oxford system of symbols. Attempts have been made to translate symbols into numerical numbers.

(3) *Penalty of failure.*—The penalty of failure in the existing system is very great. The witnesses before the Calcutta University Commission said that the penalty for failure at a university examination is at present unduly severe; and this in three respects:

- (a) The candidate is required to take the whole course of study again in all his subjects with the requisite percentage of attendance.
- (b) He is required to take the whole examination once again in all its subjects.
- (c) He is required to wait for a whole year before he can appear at the examination again.

To mitigate this hardship most universities have introduced compartmental system and exempted the students from attendance, but they do not save the time of students. I think that we should follow the practice of holding examinations twice a year as is done in several countries. Those who failed in the examination held before the long vacations and attain a certain standard may be re-examined just before the beginning of the next session.

(4) *Pass marks.*—The fixation of pass marks and the marks necessary for obtaining I Division should be determined in a scientific manner and should not be left to the vagaries of a few influential members of the examining authorities. Pass marks are fixed for each examination and they are not altered each year. They remain constant. Every pain should be taken to see that the standard of question papers and the scale of marking also remains constant from year to year. This is an onerous task and calls for ripe experience and sound judgment, coupled with the somewhat rare ability of setting suitable examination papers. No effective attempt has been made to secure constancy in the standard of question papers, or in the scale of marking, which is left to the 'perception' of a

single individual often selected for the award of monetary patronage or on the principle of reciprocity.

The standard of the First Division should also be uniform as far as possible in the preliminary examinations of the Indian universities. The following table will give the marked discrepancies in the percentage of candidates who obtain first class marks:—

University.	Year.	Percentage of successful candidates who obtained a first class.
Calcutta . . .	1914	43·7
	1915	48·8
	1916	53·0
	1917	52·0
	1918	58·4
	1919	1·6
Allahabad . . .	1915	0·9
	1916	0·6
	1917	0·8
	1918	0·4
	1919	13·2
	1915	11·7
Punjab . . .	1916	8·9
	1917	11·9
	1918	11·3
	1919	38·4
Patna . . .		

(5) The Committee should examine whether it is desirable to set up a permanent Committee to review the conduct of examination and to report among others on the following points:—

- (a) Moderation of Question papers to assure that standards do not vary abnormally from year to year.
- (b) Maintenance of uniformity of standard among the sub-examiners of the same paper and in various subjects included in a Competitive examination.
- (c) Fair treatment to border-line cases.
- (d) High School or Matriculation examinations now conducted by various examining authorities qualifies a candidate to join any University in British India and it seems desirable to maintain uniformity in the standard of these examinations. The Sub-Committee may periodically examine and report on the working of these examinations.

APPENDIX I (I).

MEMORANDUM ON ITEM XVI OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Copy of letter No. 7525/F., dated the 8th October, 1941, from the Government of Bombay regarding the question of the introduction of Hindustani in primary and secondary schools.

I am directed to refer to letter No. F. 10—12/41-C. A. B., dated the 28th August 1941, from the Government of India, and to suggest for discussion by the Central Advisory Board of Education at its next meeting to be held in January 1942, the question of the introduction of Hindustani in primary and secondary schools. The Government of Bombay decided in September 1938, that steps should be taken to introduce the study of Hindustani in all the schools of this Province. The Provincial Government also announced that the teaching of the language would ultimately be made compulsory in all the recognised schools in the Province. It is, however, very difficult for the present to fix a time-limit for the compulsory introduction of Hindustani because a standard Hindustani which is generally acceptable has not yet been evolved.

2. In considering the problem of Hindustani two distinct aspects have to be kept in view—

- (a) the evolution of an all-India Hindustani; and
- (b) the manner of imparting knowledge of that language to pupils of a particular Province—e.g., (i) preparation of suitable text-books, (ii) inclusion in the text-books of subjects familiar to the province concerned, (iii) the giving of preference to those words in Hindustani which are similar to those of the provincial language and therefore easily assimilable locally, (iv) adopting a standard and efficiency easy for a Province whose pupils may not be familiar with Hindi or Urdu.

The correct procedure seems to be to tackle (a) first and draw from such a standardised language those features which are easily assimilable by each Province through the vehicle of subjects which are locally familiar. It seems, therefore, necessary that we should first evolve a standard Hindustani for the whole of India. The Government of Bombay is of the opinion that the task is of all-India importance and should be undertaken by a Central body composed of philological experts interested in the evolution of a common Hindustani language. The Government of Bombay finds that the Bihar Government has set up a Committee to compile a Hindustani Dictionary, a grammar, a list of technical terms and an English-Hindustani Dictionary. The Bombay Provincial Board for Education in Hindustani wishes to undertake a somewhat similar investigation, although narrower in scope. These efforts indicate a wide spread need for the evolution of a standard Hindustani. If, however, every province were to act independently in this matter, there will be wastage, duplication, confusion and lack of co-ordination. I am, therefore, to request you to be so good as to place this question before the Central Advisory Board of Education at its next meeting. The Board may be requested to consider (1) whether it would not be desirable to evolve a standard Hindustani language for the whole of India, and (2), if so, whether the Board would undertake to appoint a central body for the purpose of compiling a standard Dictionary, Vocabulary and Grammar.

APPENDIX I (m).

MEMORANDUM ON ITEM XVII OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Copy of letter No. 2296-Edn., dated the 8th November, 1941, from the Government of Bengal, regarding the need for financial assistance from the Central Government for Primary Education Schemes in Bengal.

With reference to your letter No. F. 10-12/41-C. A. B., dated the 28th August 1941, I am directed to suggest the Need for financial assistance from the Central Government for Primary Education Schemes in Bengal, marginally noted subject for discussion by the Central Advisory Board of Education at its seventh meeting to be held in Hyderabad-Deccan on the 14th and 15th January 1942. A self-contained statement of the subject is given below.

Statement.

1. In 1938, the Government of Bengal appointed a Committee to advise them on the problems of Primary Education.

2. The Report of this Committee was published in 1939. It contained a scheme for free and compulsory Primary Education for children in rural areas between the ages of 6 & 10—four years.

To finance the scheme the income was to come from:—

(a) existing Government grants, guaranteed in the Primary Education Act of 1930 and amounting to Rs. 28½ lakhs.

(b) proceeds of an Education Cess which when realised throughout the province could be expected to yield about Rs. 100 lakhs.

(c) additional grants from Government.

3. The cost of a four-year Primary Education Scheme for rural areas is estimated at about Rs. 964 lakhs, so that additional grants to be made amount to Rs. 240 lakhs approximately, a sum beyond the taxable resources of Bengal.

4. The Committee recommended that the Government of India should be asked to make a grant of 250 lakhs of rupees to Bengal to mature the modest scheme which has been drawn up to be put into operation.

Sd/- J. M. BOTTOMLEY.

Dated the 4th November, 1941.

Recommendation made by the Second Wardha Education Committee of the Central Advisory Board of Education regarding the grant from Central Revenues to Provincial Governments towards the cost of 'basic education'.

* * * * *

(8) That subject to such conditions as are set out in the report, the Central Government should contribute not less than half the amount of the approved net recurring expenditure on 'basic' education in each province, the balance to be found by the Provincial Government and the

local bodies entrusted by it with the administration of compulsory education. For capital expenditure on buildings, equipment, etc., a loan system should be adopted.

Decision of the Central Advisory Board of Education reached at its meeting held in May 1940, on recommendation No. (8) of the Second Wardha Education Committee.

While the majority of the members of the Board accepted the view of the Committee, the official members representing the Government of India expressed their inability to commit themselves in any way. The representative of the Legislative Assembly attending the meeting felt himself precluded under existing circumstances from supporting the Committee's recommendation. One or two members, while in favour of the principle that the Central Government should make some contribution, found themselves unable to go as far as the Committee desired.

APPENDIX I (ii).

MEMORANDUM ON ITEM XVIII OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Technical and Industrial Education.

At its meeting held in May 1940, the Central Advisory Board of Education had before it the question of the future development of technical education in India including the training of apprentices. The Board, after considering certain aspects of this question, decided that a memorandum should be prepared by the Educational Commissioner in consultation with the Department of Labour, and circulated to Provincial Governments and Local Administrations with the object of eliciting their views as to whether:—

- (a) it is desirable to investigate this subject, and
- (b) if so, the best procedure to be adopted for so doing.

The Board decided to consider the matter further at its next meeting in the light of the opinions expressed by Provincial Governments.

2. In view of the fact that many technical institutions in India are devoting themselves at the moment to the scheme for training war technicians, the Labour Department suggested the postponement of the consideration of this subject till after the war. The Educational Commissioner reported this to the Board at its last meeting and it was agreed that no further action should be taken for the present in the way of consulting Provincial Governments. The Government of Assam have now suggested, in their letter No. 3497/8783 E., dated the 4th November 1941, that the question of the 'promotion of technical and industrial education in connection with the Universities and Colleges in India' should be placed before the Board at its meeting to be held in January 1942. The relevant extract from the Assam Government's letter is given below.

"I am directed to refer to your letter No. F. 10-12/41-C. A. B., dated the 28th August 1941 and to furnish below a self-contained memorandum for including in the agenda of the seventh meeting of the Board to be held in Hyderabad-Deccan on the 14th and 15th January 1942.

1. Promotion of Technical and Industrial education in connection with the Universities and Colleges in India:—

(a) Development of Technical education has become one of the most urgent needs of this country, especially for the purpose of industrialisation. India's contribution to the War effort has already stimulated the process and newly formed Association of Principals of Technical Institutions of India should give impetus to this. This Government would press for a discussion in the next meeting of the Central Advisory Board on the question of co-ordination of the Departments of Education and Industries in regard to the promotion of Technical and Industrial education along with general education through Universities and Colleges.

(b) Under the revised Regulations of the Calcutta University, this Government hope, if funds permit, to introduce vocational courses in the High Schools of this Province for candidates of the Matriculation Examination. The Central Advisory Board is requested to advise on the practical ways of giving vocational direction to boys from the primary and secondary stages up to the collegiate and University standard through provision of facilities for Industrial and Technical education".

APPENDIX I (o).

MEMORANDUM (BY EDUCATIONAL COMMISSIONER) ON ITEM XX OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Recruitment and training of teachers.

It has been the custom of the Board to appoint each year one or two special committees to consider and report upon educational problems of an All-India significance. The Board has not yet considered the question of the recruitment, training and conditions of service of teachers which is an issue of fundamental importance to all education authorities. If the Board favours the appointment of such a committee in 1912, it is suggested that its enquiry should be limited to the requirements of Primary, Middle and High Schools (including Technical High Schools).

APPENDIX I (p).

MEMORANDUM (BY EDUCATIONAL COMMISSIONER) ON ITEM XXI OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Award of scholarships for study in Indian Public Schools.

While I have consistently discouraged grants from public funds to schools attended by the children of the class of parents who should be capable of meeting the whole cost of their education; I appreciate the need for encouraging the sort of schools in which the future rulers of India will get the kind of education which will fit them best to shoulder their coming responsibilities. Since it is reasonable to expect that such leaders will not by any means be found exclusively among the monied classes, there is much to be said for providing means whereby boys and girls of outstanding promise, whatever the financial circumstances of their parents, may not be debarred from the best type of training wherever

it may be given. The primary object of the schools accepted as members of the Indian Public Schools Conference is that they should provide this training.

I suggest that the Indian Public Schools Conference should be asked to formulate a detailed scheme for giving effect to the idea which they have in mind and to submit it to the next meeting of the Board. It would be desirable also that a representative or representatives of the Conference should be invited to be present when the scheme is under consideration.

APPENDIX I (q).

MEMORANDUM ON ITEM XXII OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Copy of a d. o. letter No. 2064/O.-2S, dated the 22nd November, 1941, from Right Reverend G. D. Barne, Bishop of Lahore, to the Educational Commissioner with the Government of India, forwarding a communication from the Youth's Welfare Association.

I am enclosing a letter from the Secretary of the Youths' Welfare Association of which I am Patron. Our Association is anxious to know whether the Central Advisory Board of Education can help the work which we try to do in Schools and elsewhere to protect boys from seduction by drawing the attention of local Governments to the scourge and asking that they should do all in their power to put it down, taking action against offenders brought to their notice.

* * * * *

Copy of a letter, dated the 18th November 1941, from the Youth's Welfare Association, Lahore.

I am directed to state that the Youths' Welfare Association, of which I am the Honorary Secretary, has been carrying on a ceaseless campaign against the scourge of seduction of school boys by teachers themselves and against other vices affecting the moral welfare of the school students. At the instance of the Association the Inter-University Board has already passed a resolution strongly recommending that all obscene and erotic passages should be omitted from the textbooks prescribed for courses of study in all the subjects.

On the other question, namely, seduction, the Association notes that it is an issue of all India importance and needs urgent and serious attention. The Central Advisory Board of Education is the only recognised means of discussing questions which have a general application throughout the country and I am therefore to request that the matter be placed on the agenda of the Board at its meeting next.

* * * * *

I request that in the circumstances the matter be included in the agenda of the next meeting of the Board and I may kindly be informed about the action you have been pleased to take.

APPENDIX I (r).

MEMORANDUM ON ITEM XXIII OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Standing Committees of the Central Advisory Board of Education.

Under its constitution the Central Advisory Board of Education is empowered to form Standing Committees and to appoint to these Committees persons who are not members of the Board but who possess special knowledge and experience of the problems which the Committees are expected to examine. In order, however, to preserve an intimate connection with the Board and its Committees at least two members of the Board are to be members of each of these Committees.

2. At its meeting held in December 1935 the Board set up the following four Standing Committees with power to co-opt:—

- (1) Women's Education Committee.
- (2) Secondary Education Committee.
- (3) Vernacular Education Committee.
- (4) Vocational and Professional Education Committee.

These Committees as last constituted by the Board consisted of the following members:—

- (1) *Women's Education Committee*:—
 1. Rajkumari Amrit Knur.
 2. Mr. R. M. Statham, C.I.E., I.E.S., Director of Public Instruction, Madras.
 3. Mr. S. N. Moos, I.E.S., Director of Public Instruction, Bombay.
 4. Khan Sahib Khan Shah Alam Khan, Director of Public Instruction, North-West Frontier Province.
 5. The Educational Commissioner with the Government of India.
- (2) *Secondary Education Committee*:—
 1. Pandit Amranatha Jha, Vice-Chancellor, Allahabad University.
 2. Mr. J. M. Bottomley, C.I.E., I.E.S., Director of Public Instruction, Bengal.
 3. Rajkumari Amrit Kaur.
 4. Mr. G. A. Small, I.E.S., Director of Public Instruction, Assam.
 5. Mr. J. C. Powell-Price, C.I.E., I.E.S., Director of Public Instruction, United Provinces.
 6. Mr. J. S. Armour, I.E.S., Director of Public Instruction, Bihar.
 7. The Educational Commissioner with the Government of India.
- (3) *Vernacular Education Committee*:—
 1. Rajkumari Amrit Kaur.
 2. The Right Rev. G. D. Barne, C.I.E., O.B.E., V.D., Bishop of Lahore.
 3. Mr. R. M. Statham, C.I.E., I.E.S., Director of Public Instruction, Madras.
 4. Mr. W. H. F. Armstrong, I.E.S., Director of Public Instruction, Punjab.
 5. Dr. Sir Zia-ud-Din Ahmad, C.I.E., Ph.D., D.Sc., M.L.A.
 6. Pandit Amranatha Jha, Vice-Chancellor, Allahabad University.
 7. Mr. J. M. Bottomley, C.I.E., I.E.S., Director of Public Instruction, Bengal.
 8. The Educational Commissioner with the Government of India.

(4) *Vocational and Professional Education Committee*:-

1. Mr. P. F. S. Warren.
2. Dr. Sir Zia-ud-Din Ahmad, C.I.E., Ph.D., D.Sc., M.L.A.
3. The Honourable Diwan Bahadur Sir K. Ramunni Menon.
4. Sir Shri Ram.
5. The Honourable Sir Andrew Clow, K.C.S.I., C.I.E., I.C.S.
6. The Educational Commissioner with the Government of India.

The following vacancies now exist on these Committees:-

(1) *Secondary Education Committee*:-

Three—as Pandit Amranatha Jha, Mr. G. A. Small and Mr. J. S. Armour have ceased to be Members of the Board and consequently of this Committee.

(2) *Vernacular Education Committee*:-

One—as Pandit Amranatha Jha, has ceased to be a Member of the Board and consequently of this Committee.

3. Before any step is taken to fill these vacancies the Board's attention should be called to their decision at the last meeting that in future arrangements should be made for the meetings of the Board to be preceded by meetings of the Standing Committees.

To make this decision as effective as possible some reconsideration both of the scope and the personnel of these Committees seems essential. It is desirable that between them they should cover the main branches of educational activity which come within the purview of the Board and that as it will usually be necessary for them to meet concurrently in future, steps should be taken to avoid membership overlapping wherever possible. It is suggested that there is an immediate need for 4 Standing Committees though there is no reason why this number should not be increased as circumstances require. The Committees proposed are—

- (A) Primary Education Committee.
- (B) Secondary Education Committee.
- (C) Further Education Committee.
- (D) General Purposes Committee.

Committee (A) should deal with all matters affecting Primary and Pre-primary education. This will also cover 'basic' education.

Committee (B) should deal with all matters affecting the middle and high school stages of education.

Committee (C) should deal with matters affecting Technical, Commercial and Art education and Adult education generally.

Committee (D) should deal with matters not covered by the scope of the other 3 Standing Committees.

It will be clear that Committees (A) and (B) will have to co-operate in regard to many questions which concern the transitional stage between primary and secondary education. Similarly Committees (B) and (C) will have mutual interests in matters like Technical High School, Examination, and the award of scholarships, etc.

It is the practice of the Board to refer matters concerning University Education to the Inter-University Board and it is suggested that any recommendations, etc., from that body should be considered in the first instance by the General Purposes Committee.

No period has hitherto been fixed for membership of the Standing Committees. It is suggested that in future the term of office should be for 3 years.

APPENDIX I (s).

MEMORANDUM ON ITEM XXV OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Copy of a letter No. 7437/F., dated the 13th December 1941, from the Government of Bombay, regarding the experiment of 'Basic' education in the Bombay Province.

I am directed to refer to the *note regarding the development of the experiment of Basic education in this Province, forwarded with this Department letter No. 4817/F., dated the 9th October 1941, and to say that certain important issues have arisen in connection with the scheme which, in the opinion of the Provincial Government, requires expert investigation. A majority of the non-official members of the local Advisory Committee for Basic education is of the opinion that spinning is the most suitable craft, and that the introduction of any other craft is impracticable. They have also pressed for a considerable increase in expenditure on school buildings, training of teachers and higher scales of pay. Certain minor suggestions relate to the preparation of text books, supervision and control of basic schools and selection and qualification of the teachers to be selected for training.

From the economic point of view also these schools are proving far more expensive than other ordinary schools. The Provincial Government feels that the increase in expenditure will affect the value of the experiment regarding the feasibility of extending this type of education on a mass scale. In certain areas objections to spinning as a basic craft have been raised by parents of the pupils. The Provincial Government, therefore, feels that a stage has been reached when expert opinion on the working of the schools and the lines of the future progress would be very useful.

2. I am accordingly to request that you will be so good as to move the Central Advisory Board of Education to depute a small Committee of about three to four members to visit the basic schools in this Province and to make the necessary suggestions to the Government of Bombay in regard to the future working of the experiment. The Government of Bombay is willing to defray the travelling expenses of the members of the Committee in accordance with the rates prescribed by the Central Government for persons of the status of the members of the Board.

3. On hearing from you about the decision of the Board in the matter a programme of the visit will be settled in consultation with the members of the Committee.

APPENDIX I (t).

MEMORANDUM (BY DR. W. A. JENKINS) ON ITEM XXVI OF THE AGENDA PLACED BEFORE THE CENTRAL ADVISORY BOARD OF EDUCATION.

Recruitment of Education Officers.

There has been a steady deterioration in the quality of the senior men available, particularly in the administrative departments in the Education Services. This is leading to a very serious position which in a few years time will leave educational administration and organization in a very inferior and inefficient position. This deterioration is in the main due to the fact that the prospects offered to men of ability are incomparably better in certain other branches of Government services than they are

* See Appendix A(ii) of the agenda.

in the Education Department. It is true, of course, that in other countries educational work is not the highest paid of all public services but there the disparity is not very great and the amenities which educational work, particularly college work, offers are so attractive that some of the ablest brains of the country are available for direct educational teaching or educational organization. Formerly the existence of an Imperial Service—repugnant as it may have been to political aspirations and logically untenable at first sight as it may appear to have been—did supply India with a number of men amongst whom were some of first grade capacity and whose personality and influence were comparable with those of the best men in the other services. This position no longer holds. It is nearly 20 years since the normal recruitment to the Imperial Service ceased and in most provinces the service has almost completely died out. This is not in itself necessarily undesirable particularly if the arrangements made to replace the Imperial Services had been such as to ensure to the country some of the best men available. Briefly the following is the present position:—

1. The Indian Civil Service and the Imperial Police Service offer prospects that place its officers not merely better off but in a definitely higher and superior category to that in which the best men now appointed to Educational posts can be placed. Indian Audit and Accounts and certain branches of the Technical Services also offer prospects which ensure that able intelligent youths first go for this type of employment. Practically no student of ability if he can get into the I. O. S. or I. P. S. or other all India Services considers education as a vocation. The best group of people are therefore reserved for non-educational work. Students who fail to obtain a post in an all India Service then try for the Provincial Civil Service and Provincial Police Service, etc. Prospects even in these Provincial Services which are definitely subordinate to the Imperial ones, are better than the normal prospects available in the Education Department. It is true that for example the Bengal Senior Educational Service is on paper a more attractive proposition than the Provincial non-Educational Services. In practice however recruitment in Bengal to the Senior Educational Services is reserved either for promotion or for men who have established reputation for research or teaching in their own subjects. At any rate there are few appointments now made to the Bengal Senior Educational Service of brilliant young graduates whose mental capacity and efficiency fits them for effective work in any direction. Recruitment to the all India Educational Service was generally made from people of the latter type. The Provincial Civil and Police Services recruit therefore the best of the second grade able officers. Having failed to obtain admission to the Provincial Civil Service and Provincial Police Service young men then turn to such services as the Provincial Education Service. Those who have a liking for College work and have shown capacity in research may be recruited direct to such services as the Bengal Educational Service which has a starting pay of Rs. 150 rising to Rs. 700. The initial pay may be higher for older entrants but not indefinitely so. The initial pay and the very slow rate of increments is not attractive and in general the people who enter these services are those who have failed to obtain better services in other departments. With regard to the Inspecting Branch and the administrative branch recruitment is almost invariably made by promotion from the subordinate services. The subordinate services usually start on a pay of Rs. 75 rising to Rs. 175. They absorb,

therefore, men not of the first grade or even second grade but a third and lower grade type. These men recruited to the Subordinate Educational Service become teachers in schools or Sub-Inspectors. It is from these men that recruitment to the Inspecting Branch in the Bengal Educational Services is made. Normally such recruitment comes after a number of years of what may be ordinarily satisfactory work but which has in general killed the initiative, stifled a great deal of ambition and deepened the groove in which the minds of the people work. Most of them never get out of this groove. These are normally the men who first get promotion to the Bengal Education Service and later to the Bengal Senior Education Service. It is from these officers that the Bengal Senior Education Service is, as far as Inspecting and Administrative posts are concerned, generally recruited. The result is that people in such positions as Assistant Directors, Divisional Inspectors and College Principals are frequently no longer men of outstanding mental capacity comparable with the Civil Officers such as Magistrates upon whom they should be able to exert real influence. More and more the position arising is that partially because of political developments but chiefly because of the inferior capacity of the Education Officials, Civil Officers are regarding educational administrators as Government Servants under their control. Often, educational policy instead of being controlled by educational officers with the co-operation of the Civil Officers, is very largely controlled (in so far there is any control) by Civil Officers who instruct Educational Officers in their duties. This is of course an exaggeration but indicates the process that is taking place and which means that real educational principles and experience are not available in developing educational policy within the province. Theoretically the old policy of offering high initial rates of pay and good prospects to young able men appeared to have little justification. In practice it worked for it is becoming more and more clear that high initial intelligence and innate capacity is the premier requisite in an officer. We must have such officers in the Education Department as well as in non-technical Civil Departments. This present position arises from a policy of drift and is I believe in Bengal worse than in most other provinces partially because of the long delay in establishing the Senior Services but there are certain essential features common to all provinces in India which require I think immediate attention. I suggest that it is necessary to devise some scheme whereby of those who have proved their intelligence and attainments some can be allocated to educational work and administration. It might be possible for example to have the Educational administration branch as part of the general Civil Service ensuring that those who are entrusted with the work are technically efficient, by giving them training in Training Colleges instead of the ordinary probationary training for those whose work is going to be in the Finance or General Administrative Branches of the Civil Services. This means of course officers more or less permanently allocated to departments and amalgamation of the Education with the Director of Public Instruction's Officers. An alternative would be to re-start a policy of recruiting direct to the Senior Services able young men who are interested in Education. This would mean making Educational Service conditions more satisfactory. The problem is important and requires, I think, first a survey of what are the present conditions in the different provinces and then a united recommendation to the Government of India to take steps to solve this problem. The enquiry into the actual position should be an impartial one for there would be an obvious reluctance to admit that the present personnel is

unsatisfactory. There are men of very high capacity in India able to work. The problem is to ensure that some of these men are available to the Education Department. There will always of course be one or two scholars to whom the attraction of a life of study, provided they are not actually in want, will outweigh the far greater emoluments and prestige in other services. But these are very few and far between and when such individuals are found they are generally of the scholarly type who will not quickly be either available or satisfactory for administrative work.

APPENDIX II. ITEM XII OF THE AGENDA.

Report of the School Buildings Committee of the Central Advisory Board of Education, 1941.

At their sixth meeting held in January 1941 the Central Advisory Board of Education had under consideration the desirability of setting up an expert committee to examine what steps could be taken in the interests of efficiency and economy to improve the planning, construction and equipment of school buildings.

The Board were in agreement as to the importance of taking steps to ensure that school buildings should be designed in future with closer attention to modern scientific standards in regard to accommodation, lighting, ventilation and sanitation and with due regard to economy. The Board recognised that a certain amount of experimental work had already been done in this sphere in different parts of India but decided that in order to collate the results of these experiments as well as to consider problems which have not yet been tackled, it would be desirable to appoint a special Committee to prepare a report for the guidance of all authorities concerned with the provision of school buildings. The Board accordingly set up a Committee consisting of the Provincial Directors of Public Instruction or their nominees, and representatives of some of the larger States in India, with the Educational Commissioner with the Government of India as its Chairman. This Committee was given power to co-opt and/or consult such experts as they might think desirable. The Committee as finally constituted met at New Delhi on the 30th and 31st October and 1st November 1941. The following members were present:—

John Sargent, Esq., M.A., C.I.E., Educational Commissioner with the Government of India. (*Chairman.*)

W. H. F. Armstrong, Esq., M.A., I.E.S., Director of Public Instruction, Punjab.

S. M. Azam, Esq., Offg. Director of Public Instruction, Hydérabad-Deccan.

J. M. Bottomley, Esq., C.I.E., I.E.S., Director of Public Instruction, Bengal.

A. W. H. Dean, Esq., C.I.E., M.C., Superintending Engineer, Delhi Province.

A. Gopala Menon, Esq., M.A., B.Com. (Lond.), Director of Public Instruction, Travancore.

Dr. G. G. R. Hunter, M.A., D.Phil. (Oxon.), F.R.A.I., I.E.S., Director of Public Instruction, Central Provinces and Berar.

Dr. Jyotindra Markand Mehta, M.A. (Oxon.), Ph.D. (Lond.), Bar.-at-Law, Commissioner of Education, Baroda.

J. Leitch Wilson, Esq., M.A., Superintendent of Education in Baluchistan.

E. G. McAlpine, Esq., M.A., Director of Public Instruction, Mysore.
 M. A. Mirza, Esq., C.E. (Lond.), Chief Engineer and Secretary to
 H. E. H. the Nizam's Government in the Public Works
 Department, Hyderabad.
 S. N. Moos, Esq., I.E.S., Director of Public Instruction, Bombay.
 J. C. Powell-Price, Esq., C.I.E., I.E.S., Director of Public Instruction, United Provinces.
 D. S. Reddy, Esq., M.A., (Oxon), M.B.E., Deputy Director of Public Instruction, Madras
 S. C. Roy, Esq., I.E.S., Director of Public Instruction, Assam.
 K. G. Saiyidain, Esq., B.A., M.Ed., Director of Education, Kashmere.
 Surendra Nath Kar, Esq., Architect, Visva-bharati, Santiniketan, Bengal.
 W. W. Wood, Esq., F.R.I.B.A., M.I.Struc.E., Principal, Delhi Polytechnic, Delhi.

Mr. A. S. Khan, I.E.S., Director of Public Instruction, Bihar, Khan Sahib Khan Shah Alam Khan, M.A., LL.B., Director of Public Instruction, North-West Frontier Province, Shamsul-Ulema Dr. U. M. Daudpota, M.A., Ph.D., Director of Public Instruction, Sind and Mr. S. C. Tripathi, I.E.S., Director of Public Instruction, Orissa, were unable to attend. The agenda and other papers circulated with it to the Members of the Committee will be found in Annexures I, II and III. In addition a Note on primary school buildings in rural areas by Dr. G. G. R. Hunter was circulated previous to the meeting (Annexure IV).

In opening the proceedings the Chairman welcomed the Members of the Committee and explained briefly the reasons which had led to its being set up. He stated that during the last ten years, a considerable amount of research work had been done in the western countries and in particular by the National Institute of Industrial Psychology, Great Britain in co-operation with Education Authorities with the object of determining the environmental conditions under which both teachers and children would be capable of the maximum out-put without undue fatigue. They had been led to undertake this enquiry in view of the surprisingly successful results which had attended a similar investigation into factory conditions. The outcome of the enquiry had more than justified the labour and expense involved and had shown that there were scientific principles which if applied to the design and planning of schools would greatly improve their efficiency without necessarily increasing their cost. It had been conclusively shown that it was possible to prescribe and secure standards particularly in regard to lighting, heating and ventilation which eliminated unnecessary strain and fatigue and thereby increased output. The fact had of course to be recognised that a large number of schools in this country were housed in buildings that were never intended to be used as schools and that even in the case of new schools, financial considerations tended everywhere to determine construction. At the same time he felt that in India, where climatic conditions might simplify the building problem in some places and complicate it in others, any practical contribution towards the solution of the issue submitted to the Committee would be of immediate value to every authority responsible for the erection or provision of schools. In his opinion the function of the Committee was not to attempt to prescribe building standards for universal adoption but having due regard to essential educational requirements, climatic considerations and

the need for economy to indicate possible alternatives in the way of school planning and construction for the guidance of all authorities concerned with these matters.

Scope of the Enquiry.—Although the terms of reference do not delimit in any way the extent of the enquiry, the Committee first considered whether it would be desirable and practicable to extend the investigation to cover educational institutions beyond the high school stage. It was felt that as the planning of technical and art institutions, university colleges and universities, and even training colleges and normal schools, would be largely determined by the particular nature of the work which they would be called upon to undertake and as this would vary from institution to institution to a greater or less degree, the prescribing of any schedule of accommodation, arrangement of buildings, etc., that would be generally applicable, would be an impossible task. It was, however, agreed that it might be feasible to lay down certain principles which might be observed in the design and planning of the buildings for such institutions. (cf. Section 18).

2 Class room area per pupil—The Committee felt that as the principal unit in the types of school under consideration is and is likely to remain the ordinary class room, they should start by determining the superficial and cubic area which each pupil should be allotted in a room of this kind in order to secure for him or her reasonable space for movement and an adequate supply of fresh air. The standard prescribed by the Board of Education, England, is 10 sq. ft. for every pupil under 11 years of age and 12 sq. ft. for those over 11, with a minimum height of 11 ft., if the room has a flat ceiling. It was recognised that in England class rooms at all stages of education would be provided with desks or with chairs and tables and that the presence of furniture involved a greater demand on floor space than the habit of sitting on the floor, which is prevalent throughout primary schools in India. On the other hand climatic conditions in many parts of India increase the importance as well as the difficulty of securing an adequate air supply for every pupil.

The Committee came to the conclusion that 10 sq. ft. should be recommended as the minimum floor area per pupil in Primary Schools and 12 sq. ft. in Middle and High Schools. The minimum height of class rooms should be 12 ft. but this should be interpreted as the average mean height where the roofs are not flat. It was agreed that this height might be reduced by 1 foot or possibly more when one or more sides of the class room are entirely open to the air. The height should in no case be reduced below the level necessary to secure both sufficient natural lighting and efficient heating (or cooling as the case may be).

The same floor and air space would be required for girls as for boys.

3. Minimum sizes of rooms.—(a) Ordinary class rooms.—Having set out what they regard as the minimum superficial and cubic space which is required for each pupil, the Committee with the object of deciding the size of an ordinary class room proceeded to consider the maximum number of pupils which it should be designed to accommodate. This they agreed should be fixed at 40 in Primary Schools and at 35 in Middle and High Schools, the standard to be the same both for boys and girls and for schools in urban and in rural areas. It would, however, obviously promote economic construction and facilitate the transfer of schools from one grade to another as required, if the class rooms in all types of schools in the same area could be of a uniform size. The adoption of what is known

as the 'convertible unit' has proved of the utmost utility in schemes for educational reorganisation in Great Britain where a school planned for junior children might subsequently be required for seniors and vice versa. On the basis of 10 sq. ft. each for 40 pupils in a Primary School and 12 sq. ft. each for 35 in a Middle and High School as suggested in the previous chapter the minimum floor area for a class room would vary between 400—420 sq. ft. in the type of school now under consideration. The Committee therefore came to the conclusion that a minimum floor area of 400 sq. ft. or a little over might safely be prescribed for the ordinary class room in any type of school, though where funds permit this might be extended up to 480 sq. ft. with advantage from the purely educational standpoint.

(b) *Special rooms.*—The Committee next considered the floor areas which should be provided for laboratories and practical rooms, i.e., rooms for the teaching of various arts and crafts, in schools of different types. So far as Primary Schools are concerned, it was felt unnecessary to have any special provision for science teaching and for practical work since in neither case at this stage would the use of any but the simplest apparatus or equipment be involved and an ordinary class room of the size already prescribed should be large enough to satisfy normal requirements. In those schools, however, which provide specially for infants and nursery classes there should be rooms of 600 sq. ft. for these, since very small children need approximately 50 per cent more floor space for the free movement which is now accepted as an essential feature of kindergarten training. In Middle Schools which do not form part of High Schools and will in most cases serve rural areas, it is unlikely that science will be taught on lines which will involve much practical work requiring the use by students of anything beyond very simple apparatus. In most schools also it will be found necessary to divide classes for science so that the average size will not exceed 20. It was therefore felt that a room of the ordinary class room size, i.e., a 400 sq. ft. unit, would suffice. Where, however, it was found necessary or desirable that a whole class (i.e., max. of 35-40) should take science together, it was suggested that two 400 sq. ft. class room units with a removable partition could be combined when required into a science laboratory of 800 sq. ft.

In High Schools it was agreed that both for science laboratories and for arts and crafts a room equivalent in area to two class room units, viz., 800 sq. ft. would be needed for a half class.

4. *Minimum accommodation required in schools of various types*—Having thus defined the floor area of the main types of room required in a school building by multiplying the number of pupils in a given class by the number of sq. ft. which each of them needs for reasonably comfortable and hygienic working, the Committee next considered what should be the minimum accommodation (including rooms both for the teaching and non-teaching purposes) which ought to be provided for schools of different sizes at each of the three main stages of education with which they are concerned, viz., Primary Schools, Middle Schools (which do not form part of High Schools), High Schools (including middle sections). The Committee wish to make it clear that in drawing up a schedule of accommodation they have no intention of trying to lay down hard and fast rules. Their main object is to indicate in a fairly precise way the minimum accommodation which in their opinion will allow schools of varying sizes at the three different stages specified to work efficiently.

In the interests of economy which is a consideration of paramount importance in most parts of India so far as school building is concerned, they have not suggested the provision of any rooms which, however, desirable, cannot be regarded as essential. For instance there can be little question that a separate hall is extremely desirable for corporate activities in a large Primary or Middle School; similarly in a large High School a separate Hall and gymnasium and, when any considerable number of pupils take meals at school, a separate dining room will not only add enormously to the amenities of the school but will also greatly facilitate the task of organisation. Extra accommodation of this kind should certainly be provided when funds allow.

The schedules of accommodation set out below have been drawn up with due regard to the activities covered by the normal curriculum in schools of the type specified. The Committee recognise that whenever the curriculum departs from the normal, e.g., in giving a much greater amount of time to handicrafts, more practical rooms and possibly less ordinary class rooms will be required. It is also not the intention of the Committee to suggest that the sizes of school chosen by them for the purpose of illustration are either those that commonly exist or those that should be adopted for ideal organisation. The reasons which led to their selection will no doubt be sufficiently apparent. At the same time it is desirable to point out that in cases where the size of school need not be finally determined by the number of pupils available, there is an optimum size at each stage of education which enables the most economic use to be made of the accommodation and staff, and in particular of the special rooms and specialist teachers. For example, if there are 80 teaching periods in a school week and the average number of periods per week which each class or half-class devotes to a practical subject such as wood and metal work or spinning and weaving or domestic science is three, then a school with ten classes or half-classes will enable the special room and teacher provided for each of these subjects to be fully employed. If there are fewer classes than ten, then expensive accommodation and equipment and a specialist teacher will be standing idle part of the time while if there are more, additional special rooms and teachers will be required and these again will not be fully employed until the number of classes doubles the original figure. Classes however cannot be multiplied indefinitely for there is a fundamental educational consideration which ought always to limit size. When any school gets beyond a certain number—experience suggests about 500 pupils—it begins to lose certain characteristics which are essential to the conception of a good school, e.g., the Head is no longer able to maintain contact with individual pupils and parents and the pupils themselves cease to be conscious of being members of a living corporate entity.

On the other hand a warning must be uttered against any assumption that the organization of the school can or ought to be unduly simplified purely in the interest of economising space. Apart from the splitting of classes for science and practical subjects which is usual throughout the world, most schools in India are faced with a further cross-classification to provide for language teaching. The provision of a reasonable margin of accommodation particularly at the higher stages is consequently inevitable. The Committee have met this need by recommending the provision of a class room for each class or class section in addition to laboratories and practical rooms. When the latter are used to anything like

their full capacity, it must follow that there will always be some class-rooms available for language groups.

Before drawing up a schedule the Committee examined the needs of schools of the three new types for teaching and non-teaching accommodation.

(a) *Primary Schools.*—There are certain needs common to all Primary Schools. The Committee are strongly of opinion that to secure the conditions necessary for effective teaching each teacher whether in charge of one or more classes or class sections should have a class room to himself.

The Committee also recognise the educational advantage of every school having some place where all the pupils can be assembled from time-to-time for school functions, religious exercises and other forms of corporate activity, and which in variable climates can be used for physical training, music, rhythmical exercises, dramatics, etc., which require more space than that afforded by the ordinary class-room. For reasons given earlier in this report they are unable to regard the provision of separate halls as an essential part of the accommodation of a Primary School. At the same time they think that other less expensive means might be found of providing the space required. The most obvious of these is to arrange that the partitions between class rooms should be capable of being removed and replaced so that two or more class rooms can be thrown together when a larger room is required. The Committee do not favour the movable partition commonly used in schools in Europe partly owing to its cost and partly because it would be unlikely to stand up to Indian climatic conditions. It was however suggested that partitions might be made of bamboo or other light screens which could be easily lifted out and put back, though doubts were expressed as to whether partitions of this nature would be effective in excluding sound and possible disturbance from the adjoining class room. The most promising alternative appeared to lie in an extended use of verandahs. Various designs (which will be incorporated in the proposed book of school plans) were suggested for enlarging verandahs so that they might provide some at any rate of the facilities normally afforded by a school hall. Apart from their use in this particular capacity the Committee wished to emphasise the importance of verandahs in all types of school buildings and particularly in those for schools in rural areas. In many districts a verandah will be an essential protection against excessive heat or heavy rain. It can also be used for open air classes in suitable weather. To be of the greatest use in these connections it should not be less than 8 ft. in depth. Its position in the plan will naturally be determined by the orientation of the main building which should itself be influenced so far as possible by the climatic conditions prevailing in the area.

In addition to the rooms required for actual teaching purposes the Committee regard adequate storage accommodation as essential in even the smallest school, particularly in view of the increased amount of practical work which is now being introduced into the curriculum, and the desirability of preserving specimens of the hand work done by the children. The accumulation of litter in the class room must on all accounts be avoided and the sort of almirah usually provided tends to occupy far too much space. A separate store-room, the size of which will obviously vary with the size of the school, should therefore be provided wherever possible.

The Committee do not regard the built-in cupboard, common in modern school buildings in western countries as a practicable alternative owing both to Indian climatic conditions and to the nature of the construction of most primary schools but they feel that where the type of construction allows, the possibility of providing recesses in the walls of class rooms in which almirahs can be placed so as to avoid encroaching on floor space should be explored.

The Committee also attach importance particularly in the larger primary schools to some place being provided where the staff can do such administrative work as falls to their lot, interview parents and enjoy reasonable privacy in the intervals between lessons. Improvements in primary education are bound up to no small extent with raising the status of the teacher in the eyes of the public and it is felt that the provision of reasonable amenities for teachers in the school premises will help towards this end.

In the light of the foregoing general considerations it is possible to suggest the minimum accommodation which should be provided for Primary Schools of different sizes. As has been already stated the sizes taken by the Committee are not to be regarded as ideal units. In any case the predominant factor in settling the size of a school must be the number of children available. Nevertheless it is hoped that the units selected will illustrate satisfactorily what the Committee have in mind and that there will be little difficulty in adding to or subtracting from the schedule of accommodation suggested to meet the needs of schools of different sizes. Sanitary arrangements will be dealt with separately under Sanitation (pp. 138-141) and the question of the area needed for playing space and physical training under Sites (pp. 147-148).

While the Committee hope that in the interest of efficiency the single teacher school with its obvious drawbacks will be progressively eliminated, they are bound to accept the fact that a very large proportion of primary schools initial in rural areas will remain of the two teacher type. In view of their large number and the very limited resources of the authorities usually responsible for creating and maintaining them, the Committee feel the paramount need of restricting the schedule to the very minimum of 2 class rooms of the minimum size already prescribed viz. 400 sq. ft. for the teacher and wherever possible and a small room for storage. Where the teacher room is large enough a portion of it should be partitioned off for the use of the teachers. The next size taken is the 5-teacher school which provides a separate class section for each of the five years normally covered by the Primary course. In addition to the five class room units it is suggested that an extra unit (400 sq. ft.) should be provided to be subdivided into a teachers' room and a store room. In larger primary schools importance is attached to the provision in addition to ordinary class rooms and rooms for teachers and storage of an additional unit to be used as a reading room and library.

No special rooms are suggested for science and handicrafts in Primary Schools as at this stage these subjects, where they are taken, can be catered for in an ordinary class room. For the reasons given earlier the Committee are unable to recommend the provision of separate Assembly Halls for Primary Schools.

(b) *Middle Schools not forming part of High Schools.*

(N.B.—Where Middle Schools contain Primary departments the accommodation for the latter should be determined in accordance with the schedule prescribed for Primary Schools).

The middle stage normally covers 3 years and the Committee have assumed that self-contained middle schools will contain 3 classes or some multiple of 3 classes. Each class or class section will require a class room of the standard size. In a 3-class school one additional standard unit (400 sq. ft. approx.) should suffice for science and another for art and handicraft. Bigger schools may require 2 additional units for one or both of these subjects but this will be determined by the number or size of classes and the amount of time allotted to these subjects in the time table.

The reasons which have deterred the Committee from prescribing separate Assembly Halls in Primary Schools apply also in the case of Middle Schools. In all these schools however, there should be an additional unit or its equivalent in floor space for office and library and another for teachers and storage. Very large schools will require a separate unit for the library and two more for the other purposes specified.

(c) *High Schools (with Middle Sections).*

N. B.—When High Schools contain Primary as well as Middle sections the accommodation for the Primary department should be determined in accordance with the schedule prescribed for Primary Schools).

In most parts of India the High (including Middle) School course covers 5 years. It will therefore normally contain 5 classes or some multiple of 5 classes, though for reasons already given the Committee would regard a school with 20 classes as the largest which under any circumstances could be accepted as an efficient unit for educational purposes.

The five-class High School in addition to 5 class rooms of the standard sizes (400 sq. ft. unit) should also contain a Science Laboratory (2 units), an Art and Craft Room (2 units), a Practical room for handicrafts, including Domestic Science in the case of girls, (2 units) a Library and Reading Room (1 unit). The Committee were strongly of the opinion that in view of the increasing importance attached to these subjects at this stage there should be special rooms of a larger size, e.g., 600 sq. ft., for History and Geography. These may be provided in place of 2 ordinary class room units but it was felt that where the need exists to make special provision for language teaching, the History and Geography rooms should be in addition to the normal class room accommodation. Apart from the rooms required for teaching purposes there should be a Headmaster's (or Headmistress') room and office (1 unit), Staff room (1 unit), and a store room ($\frac{1}{2}$ unit). Extra-curricular activities should receive special encouragement at the High School stage and the Committee are of opinion that every High School should have accommodation for these including a room for Boy Scouts or Girl Guides ($\frac{1}{2}$ unit). There should also be a retiring room for girls, the size depending on the number of girls on the register. In the case of schools containing more than 5 classes the teaching accommodation should be increased proportionately though the additions required to the laboratories and practical rooms will obviously be determined in the light of the time devoted to the subjects concerned. There is a small but

increasing number of High Schools which include classes XI and XII. In such cases an additional small laboratory (1 unit) would be necessary over and above extra class-room provision, where Science is taken.

The Committee regard the provision of an Assembly Hall and/or Gymnasium as extremely desirable in every large High School. The very high cost of such provision is the sole reason which has led them to exclude it from the minimum schedule of accommodation.

5. Dimensions of Rooms.—Apart from the question of the floor area, the actual dimensions of rooms used for teaching purposes deserve consideration.

Experience suggests that for convenient class arrangement and black-board visibility a slightly rectangular room is better than a square one. The standard class room unit of approximately 400 sq. ft. should preferably be 22' x 18' rather than 20' x 20'. Moreover when it may be necessary to combine two units to form a laboratory or practical room an area 22' x 36' has obvious advantages over one 20' x 40'. The importance of having minimum dimensions for class rooms and particularly for laboratories and practical rooms has been stressed in recent pamphlets on school buildings issued by the Board of Education (England). The Committee, however, do not overlook the fact that adherence to a uniform square unit may simplify the question of planning and reduce the cost of construction. In a subsequent section of this report (*cf.* Section 12) they make suggestions which will allow laboratories and practical rooms to be of the requisite shape without affecting the economic planning of the main building. Special consideration, however, is required in the case of Assembly Halls and/or Gymnasiums, where provided. The minimum dimensions of a Gymnasium or any room which it is intended to use for physical training should be 60' x 30'. Assembly Halls should provide at least 4 sq. ft. per pupil or person to be accommodated and the proportion of length (including stage) to breadth should not be less than 5:3. A gallery is a cheap and effective method of adding to the holding capacity: it can also be designed to improve acoustics.

The Committee gave special consideration to the provision which should be made for those pupils who take meals at school. The requirements of hostels are dealt with separately. (*cf.* Section 10). The Committee strongly deprecate the provision of separate dining rooms for different castes. It is essential to the conception of a school that pupils should take their food together, subject of course to both vegetarian and non-vegetarian food being provided where desired. The Committee recognise, however, that economic and other considerations must largely determine the nature of the arrangements made for school meals.

They contemplate that in some areas and particularly in schools attended by the children of the well-to-do it may be feasible to provide separate dining rooms in which pupils will take their meals seated at tables in western fashion. Another alternative is the standing buffet or milk bar where pupils will be able to obtain meals or supplement food brought from home. Thirdly, there is the provision of a simple weather-proof shed with a clean floor where food may be taken in Indian fashion. In all cases, the Committee feel that the arrangements made should be as simple and inexpensive as is consistent with cleanliness and decency but they emphasise the fact that the value of the school meal as a means of inculcating

hygienic habits and good manners can hardly be exaggerated. Where separate accommodation is provided for dining the size of the room must be determined in the light of the number of pupils likely to take meals at school. Care should be taken to see that kitchens, pantries, etc., while conveniently situated in relation to the dining room, are not so placed that the smell of cooking will permeate the class or other teaching rooms.

6. Special requirements of Technical High Schools and Junior Technical Schools not accommodated in Senior Technical Institutions.—Pupils in schools of this type at any rate during the later years of the course will devote a much greater proportion of their time to practical work than those in the normal high schools. Increased provision of workshop and drawing office accommodation will thus be required. Since provision of this kind will probably be available during the day time at any Technical College or Institute, the advantage of housing Technical High Schools and Junior Technical Schools in senior Technical Institutions, wherever possible, needs no emphasis.

Where however senior technical institutions are not available for this purpose special additional accommodation over and above that recommended for the ordinary High School will be required. A Technical High School containing 360—400 pupils should have 2 additional workshops and a drawing office. Each of these should have floor space equivalent to that of 2 standard units *viz.* 2×400 sq. ft. = 800 sq. ft. and should be provided in addition with adequate storage and a small room for the instructor in charge. In view of the large amount of time which Technical High School pupils spend in laboratories and workshops, it may be practicable, even though it complicates organisation, to make some reduction in the number of ordinary class rooms provided. In no case, however, can a laboratory or craft room be treated as equivalent to more than half a class-room.

7. Special accommodation needed in Schools for Physically or Mentally Defective Children.—Consideration was next given to the question whether any special accommodation is needed in the case of schools for children suffering from physical or mental defects. So little attention has hitherto been paid in India to this particular problem, that the Committee were doubtful whether such practical experience as is available would be sufficient to enable them to make specific recommendations. They felt it desirable, however, to record the opinion that although the average number in a class in the special schools for these children would be considerably smaller as a rule than that in an ordinary school, this should not be regarded as an adequate reason for reducing the size of any class room below that of the standard unit prescribed for normal children *viz.* 400 sq. ft. Children with physical defects require more space for movement and often need special furniture, while in a mentally sub-normal class freedom of movement, variety of practical occupations and personal supervision by the teacher all demand ample floor space. It is likely much experiment will be necessary before the type of accommodation especially suited to Indian conditions can be discovered.

8. Additional accommodation for schools likely to be used also for Adult Education.—Considerations of economy alone make it inevitable that enterprises connected with Adult Education should have to share the buildings as well as the staffs belonging primarily to other branches of Education. This fact, however, should not prevent some provision for

adult classes being made in the planning of schools, particularly in rural areas. In all the larger schools of this type a separate full size room (*i.e.* one unit) should be provided for the use of adults. It is not considered necessary however to prescribe additional accommodation for adult classes in urban areas as it is felt that these would usually contain a High School or schools with a variety of suitable rooms or even a technical institute which could be placed at the disposal of adult classes out of normal school hours. The desirability of providing cultural and recreational facilities for adults in all technical institutions is being increasingly recognised.

As Adults have to be attracted to attend classes, it is important that the conditions under which such classes are held should be reasonably comfortable. The creation of a club rather than a school atmosphere is highly desirable and the furnishing of schools likely to be used for adult education should be considered from this point of view. A library and reading room is an essential requisite in every adult centre and wherever possible rooms suitable for music, dramatics, discussion groups etc. should be made available.

9. Lighting, Heating, Ventilation and Sanitation.—The need for scientific standards in the case of lighting, heating, ventilation and sanitation was discussed next. The Committee were agreed as to the extreme importance of securing adequate standards in these respects in all schools. It was felt that even where genuine efforts are made to provide good buildings, too little attention is paid to determining what in fact constitutes the conditions under which both teachers and taught are likely to give of their best. Climatic conditions in many parts of India put a premium on the need for making certain that such factors as eye-strain, uncomfortable temperatures and inadequate ventilation are not subjecting the inhabitants of a school to unnecessary fatigue. It has been ascertained by scientific research in recent years in western countries that there is a mean between too much and too little light, too much and too little heat, too much and too little draught, the attainment of which automatically reduces fatigue and increases output. It has also been found that these standards can be applied to school buildings without in any way increasing their cost. It is a question of design rather than of materials. The Committee feel that the ascertainment of such standards for Indian schools is a matter of urgent importance which should be investigated without delay by an expert committee.

The Committee lay equal stress on the desirability of adopting adequate standards in connection with sanitary accommodation. Much has to be done in the way of improving personal and social hygiene in the schools, but habits of cleanliness cannot be inculcated and maintained so long as the washing facilities and other necessary conveniences remain hopelessly inadequate. Although hygienic standards in this country generally are rising, it must be admitted that facilities for sanitary arrangements even in schools for the well-to-do usually fall far below any reasonable standard.

Where there is a water-carriage system available every school should be compelled to make use of it. There should be a generous supply of water, soap and clean towels to serve the needs of pupils after exercise or other practical activities and wherever possible showers and wash basins should be provided. The Board of Education, England, prescribes a minimum of 12 basins for the first hundred children and 4 for each additional

hundred. With the growing attention now being given to games and physical exercises it is highly desirable to have a changing room of adequate dimensions for the numbers involved. In connection with this showerbaths on the basis of at least one per 25 pupils should be provided. Sprays and circular washing fountains are also recommended. In each washing room a small sink (about 14" by 9") for filling jugs and washing inkpots is desirable.

The Committee realise, however, that at the present time and for a long while to come the vast majority of schools will be situated in places not only where there is no water carriage system but also where the supply of water itself is strictly limited. Even so they attach so much importance to a proper supply of water for school purposes that they have no hesitation in prescribing that every school should be provided with a sufficiently deep and pucca well. An area, not less than six feet in the width around the mouth of the well should be paved and made impervious, and the pavement sloped outward, should be at such a height as to allow the waste water to be carried through an open drain as far as the school garden. A cistern should be placed on a high platform for storing sufficient quantity of water for various sanitary purposes. The mouth of the well should be protected with a parapet of a sufficient height to prevent any water splashing back into the well, should anyone be washing or bathing nearby, as is the traditional custom in Indian villages. In areas where the subsoil water level is fairly high, tube wells should be provided if arrangement can be made for their being kept in proper order and in others an open dug-out tank suitably protected may serve for washing purposes.

Apart from water for washing an adequate supply of drinking water is essential in all schools. The best way of providing this where water is laid on is by drinking fountains of the bubble or spray type. There should be one drinking fountain for every hundred pupils with a minimum of two. The provision of a sink with water taps at convenient heights for filling jugs, etc. is desirable. In the absence of a water carriage system, tanks with taps and securable lids, and with facilities for emptying and cleaning are recommended for drinking purposes. Jars with taps and a siphon system have also been found satisfactory.

In schools, where a water carriage system exists, the W. Cs. and urinals may be placed adjacent to or even in the main building. If these are kept scrupulously clean, as they always should be, and if the children are trained in their proper use from their earliest years, there is no reason why this proximity should have any unpleasant effects, while from the point of view of convenience and discipline it will have obvious advantages. Wherever possible latrine accommodation should be within easy reach of the playgrounds and playing fields. Where this is not possible, some separate accommodation will have to be arranged. W. Cs. and urinals should be well-lighted and ventilated and so constructed that their cleaning is an easy matter. The following may be regarded as the minimum requirements where a water-carriage system is available:—

*Girls 6 W. Cs. for first 100 and 2 for each additional 100.

*Boys 3 W. Cs. for the first 100 and 2 for each additional 100.

Urinals where provided should be on the basis of 10 ft. run per 100 boys.

The size of the water closets should be about 2 ft. 6 inches by 4 ft. 6 inches. Doors should not be more than 6 ft. in overall height. In infants'

W. Cs. the chains should be of a length which can conveniently be used by small children. The walls should be finished by some smooth, hard surface upon which writing is impossible.

Where a water-supply is not available, the Committee considered with the advice of experts the respective advantages of the following systems:—

1. Bore hole,
2. Septic tank,
3. Dry closet (as used in rural schools in England),
4. Service latrine.

The Committee have placed these in what they would regard as their order of utility for India generally; they do not favour the service latrine when it can be avoided. They realise, however, that local conditions and customs will largely determine the choice. The point to which they attach chief importance is that whichever type is chosen, it should be used and maintained in the best possible way. The Committee have been able to obtain from experts detailed descriptions of each of these systems and it is proposed that these should be included in the book which the Committee have in mind.

The Committee do not wish to conclude this section of their report without emphasising the extreme importance which ought everywhere to be attached to the maintenance of the highest possible hygienic standards in every type of school. The dangers likely to arise from inadequate drainage, the presence of avoidable litter and the insanitary practice of spitting are no doubt becoming better known but they are still far too often ignored in practice. Apart from the effect of clean and attractive surroundings on their physical well-being pupils will be found to react favourably in many other ways to a pleasant environment. Hygienic buildings have been proved by experience to be a strong inducement to the cultivation of hygienic habits by those who occupy them.

The Committee are aware that a very large proportion of the schools in this country are housed in rented buildings. While it may not be reasonable to require that all such buildings now in use should conform to the standards recommended in this report, the use of those which fall seriously short of them should be discontinued in the interest of the pupils' health at the earliest opportunity. Where it is necessary in future to have recourse to hired buildings, they should in all cases be inspected by a responsible officer of the Education Department in conjunction with an officer of the Public Health Department. Recognition should not be granted unless in respect of floor space, lighting, ventilation and sanitation they approximate closely to the requirements set out in this report.

10. Hostels.—In considering the nature and amount of the accommodation required for hostels, the Committee have taken as a convenient unit a hostel for 24 boarders, but the general requirements specified may be taken to apply with the necessary adjustments to smaller or larger units.

*The Board of Education recommendations are:—

Girls : 6 W. Cs. for first 100 and 4 W. Cs for each additional 100.

Boys : 4 W. Cs and 10 ft. run of urinals for first 100 and 3 W. Cs. and 10 ft. run of urinals for each additional 100.

Sleeping arrangements may consist of open dormitories or partitioned cubicles or separate single rooms, but in the Committee's opinion, at any rate for boys and for girls up to the age of 16 or 17, an open dormitory is much to be preferred. It is more easily cleaned and aired, it is less dangerous in case of fire and it lends itself better to efficient supervision. A dormitory with 12-beds is a very desirable size. In girls schools separate dormitories should be provided for all girls above 12.

A floor area of not less than 50 to 55 sq. ft. should be provided for each occupant and the distance between beds should not be less than 3 ft. Where a dormitory is divided into cubicles each cubicle should have its own window. If dormitories or cubicles are not furnished with cupboards, a separate room or rooms should be provided for keeping clothes. In addition to dormitories a hostel should contain adequate living accommodation for use during out-of-school hours—i.e., for study and recreation. A space of 20 sq. ft. per pupil is desirable in this respect. Proper quarters should also be provided for the person or persons in charge of the hostel and in High School hostels bed sitting rooms 10' x 8' should be given to prefects. A separate room should also be provided for meals but as stated elsewhere the provision of separate rooms for different castes or communities should be strongly discouraged. The kitchen, which should be as close as possible to the dining room, should be spacious and airy. While the actual cooking arrangements will naturally conform to local custom, ample storage space is essential. Modern labour saving appliances should be installed wherever practicable.

Arrangements for washing and bathing may be provided within easy reach from the dormitories. At least one shower is needed for every 10 boarders and one closet for every 5. For boys, urinals may be in the same scale as in the day-schools. Separate sanitary arrangements should be made for staff and for servants.

In every hostel there should be one or two rooms according to the number of occupants which can be used in case of sickness and effectively isolated. In a two-storeyed building, a sick room is necessary on each floor. In large hostels, a separate building will be necessary for infectious diseases, which should be self-contained with its own kitchen, sanitary and other facilities. The Committee are of opinion that the following schedule would be adequate but in no way extravagant for a hostel to house 24 boarders:—

- 2 Dormitories, for 12 each (each 800—660 sq. ft.).
- 1 Common Room for recreation (480 sq. ft.).
- 1 Study Room (480 sq. ft.).
- 1 Supervisor's (Bed-sitting) room.
- 1 Dining room.
- 1 Kitchen.
- 1 Store room.
- 1 Box room (small).
- 1 Fuel room.
- 1 Sick Room.

(1 water room where there is no water carriage system).

Baths and closets as prescribed.

Servants quarters.

Varandahs in hostels will serve the same useful purposes as in schools.

11. Furniture and Equipment.—In considering what furniture and equipment should be recommended for ordinary class rooms in Primary and Middle schools the Committee found themselves confronted by a more than usually sharp conflict between what is desirable educationally, and what is practicable economically. In India at the present time the usual practice is for children in Primary schools to sit on the floor and for those in High schools to sit at desks or chairs and tables. In Western countries much importance is attached for health reasons to younger children in particular adopting a correct posture when at work and above all the proper support being provided for their backs during the period when the major bones are in process of hardening. Special care is taken to see that school desks and chairs are scientifically designed with this object in view.

In theory, therefore, at any rate the present Indian practice ought to be reversed. It was, however, suggested that sitting on the floor, provided that the floor is clean and dry, would not be detrimental to health if some simple means of affording back support could be devised. Before deciding to make any recommendations which would entail heavy expense on the authorities responsible for equipping Primary schools the Committee felt they should seek expert advice on the medical issue involved. They accordingly referred the question of the desirability of providing furniture at the Middle and Primary stages to the Committee set up by the Chairman of the Central Advisory Boards of Education and Health in 1941, to consider what steps should be taken to improve the physical condition of school children. As will be seen from their report (Appendix IV) that Committee attach great importance to the effect of posture on a child's health and growth but consider that the matter requires special investigation by a body of experts. Without such an investigation it is not possible in their opinion to assess the ill-effects, if any, which the habit of squatting on the floor is having on the health of primary school children. Where, however, chairs or desks are supplied care should be taken to see that they are designed to give support in the right place. The Committee are of opinion that this is a matter which requires further investigation as suggested above.

Apart from this particular issue the problem of furnishing and equipping a primary school is a comparatively simple one. For obvious reasons such furniture as may be provided should be cheap and strong and since in the primary schools the ordinary class room will have to be used for a diversity of purposes, any furniture it contains should be light and easily movable. This is specially important in special rooms for infant or nursery classes. Reference has already been made to the need for storage and for almirahs, where so used, to be disposed in a way that will occupy as little floor space as possible.

In Middle schools seating accommodation may or may not be provided, in High schools it probably will be. Since a child who is comfortable is

more likely to pay attention and concentrate on his work than one who is not, it is important here also that the seat should be made to fit the child rather than the opposite. Small tables and chairs in place of desks will make an ordinary class room much more adaptable for certain types of practical work, e.g., needle work, book crafts etc. for which special rooms are not usually provided. Specially designed tables can be placed and where necessary clamped together to form work tables of a convenient size. Every class room in every school should be provided with a strip of 3-ply or other suitable wood 18" deep or with 3 pinrails 9" apart to which cuttings, charts and specimens of children's work can be easily affixed. The height of these should be roughly the child's eye-level.

The furniture and equipment for the various laboratories and practical rooms which the Committee have recommended in the case of Middle and High schools need careful consideration in the light of modern ideas with regard to science and handicraft teaching. The conventional type of laboratory equipment for instance is unnecessarily elaborate and expensive for all but the highest classes. A number of detailed suggestions for the furnishing of laboratories and of art and craft rooms which were discussed at the meeting of Committee will be found in Annexure V.

The question of furnishing Halls, gymnasiums, libraries, dining rooms and hostels is dealt with in Annexure VI.

12. Arrangement of School buildings.—Apart from the actual accommodation to be provided, the planning of a good school building demands that very careful attention should be paid to the way in which the various rooms are arranged in relation to one another. The Committee agree that in a matter of this kind finality is neither attainable nor desirable. Theory and practice in education are constantly changing and it is to be hoped that they will continue to do so. The ideal school building, therefore, will be one that can be readily adapted to new ideas, not one which will put obstacles in the way of their adoption. No school should be built with the object of lasting for generations. The plan must be flexible and the construction as simple and elastic as may be compatible with other essential requirements. As a general rule it may be laid down, that those parts of the buildings least likely to change materially e.g. Hall, class rooms, teachers' and store rooms should be grouped together, while laboratories and practical rooms should be arranged in blocks separate from but reasonably close to the main building. For the same reason the former may if desired be built in more permanent construction than the latter. This will also facilitate laboratories and practical rooms being of such dimensions as may be educationally desirable without unduly complicating the design or increasing the cost of the main building. A further advantage of such an arrangement is that rooms which tend to be noisy, e.g. craft rooms, can be isolated from the others.

Certain other general considerations that should determine the planning of schools of all types are set out below:—

(a) Due regard should be had to aesthetic standards, e.g. form, design and colour, in school building, in order that object lessons in good taste may be at all times before the eyes of the pupils.

(b) The question of easy movement, particularly in large schools on more than one storey, is important. Corridors should be wide enough and staircases should be so placed as to avoid congestion when classes change and above all in the event of fire.

(c) Similar considerations should apply to the siting of cloakrooms, changing rooms, bicycle sheds etc. where provided.

(d) Latrines, urinals and lavatories should from the point of convenience be as accessible as possible from all parts of the school, subject always to their being so placed as to create neither a nuisance nor an eyesore.

(e) The possibility of extension being required at some future date should always be borne in mind.

(f) Verandahs can be made a most useful adjunct to almost any school in India. The uses to which they can be put have been described on page 133.

(g) Kindergarten rooms and rooms for young children should always be on the ground floor.

(h) Where ample sites are available single storey buildings have certain advantages. They facilitate elastic grouping of rooms as well as the use of light forms of construction.

(i) The orientation of all class rooms and verandahs and of many practical rooms needs careful consideration. Local climatic conditions will largely determine this and sites should be chosen with this factor in mind.

(j) Provided that the arrangement is convenient and the design harmonious, the particular shape of the plan is of little importance. The quadrangular plan popular in Western countries twenty years ago has definite disadvantages, the most obvious being that it renders impossible the best orientation of many rooms. In rural areas there is much to be said both on grounds of economy and freedom from disturbance in favour of building class rooms as separate units appropriately disposed in the school compound, a method commonly adopted in the case of open-air schools for delicate children in Great Britain.

(k) Economy can be effected and planning facilitated by the adoption of a standard class room unit which can be multiplied if necessary where larger rooms are required. It would be an advantage if sound-proof adjustable partitions could be provided and where partition walls are provided they should be left free from carrying loads, so that they can be moved if, at some future date, it should be necessary to rearrange the rooms.

Some interesting modern suggestions with regard to the arrangement of school buildings for Primary schools are contained in the 'Design of Nursery and Elementary Schools' published by the Architectural Press, London, 1938. Extracts from this book will be found in Appendix IV.

13. *General principles applicable to the design and planning of educational buildings beyond the High School stage.*—Beyond the High School stage so many considerations affect the design and planning of educational buildings that as already stated the Committee feel no useful purpose would be served by their attempting to prescribing any principles of general applicability as regards schedules of accommodation, planning or types of construction. The Committee believe, however, that there are

certain criteria which should be observed in the building of Universities, Colleges and Technical Institutions as well as at the lower stages of education.

The first of these is that the whole conception of the buildings should be dignified and harmonious. Students at this stage are not less susceptible than their juniors to aesthetic influences. The educational value of a beautiful environment can hardly be exaggerated. A beautiful building, however, does not mean one elaborately designed or constructed of expensive material. A Technical Institute can be as satisfying aesthetically as any Arts College, so long as its design is primarily determined by fitness for its purpose. Ships, motorcars, aeroplanes and many other forms of essentially utilitarian construction illustrate this truth. The second criterion is the grouping within a harmonious whole of rooms according to function. i.e., the special needs and uses of halls, libraries, gymnasiums, class rooms, laboratories, practical rooms should always determine their disposition in the plan. Noisy rooms should be isolated. Rooms where for educational reasons exceptional dimensions are required should never be deprived of these simply in order that they may conform to architectural considerations.

Practical rooms and particularly those containing heavy machinery should be so planned that plant and materials can easily be delivered and removed. This applies particularly to technical colleges and institutes, where there should be easy access for lorries to all workshops.

14. Alternative types of construction.—The Committee were strongly of the opinion that the possibility of adopting various forms of temporary or semi-permanent construction as an alternative to *pucca* buildings should be exhaustively explored, not only in the interest of economy but also with a view to facilitating the adaptation of school buildings to changing educational ideas. There are all over India various types of indigenous construction which suit local climatic conditions. Many of these could be made suitable for school requirements. In a country like India, where there is so wide a difference in climatic conditions and materials available locally, it is not practicable to set up a common formula in regard to methods of construction. Subject to the general standards which they have prescribed being observed, the Committee feel that there is almost an unlimited field for experiment so far as the actual construction of schools and particularly of primary and middle schools in rural areas is concerned. Any of the following types again, subject to the consideration mentioned above, may be adopted to suit local requirements:—

- (i) Buildings with frame work of bamboos, walling of split bamboos or reeds with or without mud plaster, roof covered with straw or grass thatch over bamboo framing, mud floor, doors and windows of bamboo. Wooden frame doors and windows may be introduced as an improvement on this type.
- (ii) Buildings with mud walls replacing the bamboo frame or reed walling of the construction described above
- (iii) Buildings with mud walls and roof of burnt tiles or slates replacing straw or grass.
- (iv) Buildings entirely of timber.
- (v) Buildings of timber with roof of slate or corrugated sheets.

- (vi) Buildings with mixed timber and mud walls or walls of sun-dried mud or bricks, and with burnt tiles, slates or corrugated roofing.
- (vii) Buildings of unplastered brick, with thatched roofs or alternatively slates or corrugated roofing, brick or concrete flooring and wooden doors and windows. Stone or concrete walls may take the place of brick walls where stone or concrete is cheaper or more easily obtainable than bricks.

The practice of roofing school buildings of this pattern in the tropical areas with corrugated iron sheets is not favoured. Other forms of corrugated sheeting are now coming on the market which are cheaper, lighter and more pleasant to the eye than corrugated iron. The Committee are strongly of opinion that provided the necessary standards in lighting, temperature and ventilation can be secured—and they see no reason why they should not be—the possibility of erecting satisfactory schools, particularly in rural areas, by adopting any or all of these forms of construction should be carefully explored.

Experience in Assam has shown that wood and bamboo structures properly seasoned, with thatched roof and mud floors make excellent village schools. It has been found that for a really good and stable building of this type the cost is as low as Rs. 1 per square foot. Such buildings, like other forms of light construction, must be maintained in a constant state of good repair; the floors require a weekly "leap" of mud and cowdung to keep free from dust, and the thatch has to be renewed every fourth year. For this nearly half of the old thatch can be used over again and as labour and materials are available locally at a very cheap rate the whole cost of maintenance is extremely small.

A similar cheap but efficient form of construction is also being used in the Central Provinces and Berar. The Committee were shown a model of this type of construction and were satisfied that this was a suitable type for rural schools.

In the United Provinces light forms of construction have also been used and have been found to give satisfactory results. In many parts of Madras schools are housed in a combination of pucca and temporary construction. The pucca building usually accommodates the library, office, science laboratory, store rooms, etc., whereas sheds are used for general class rooms.

While the Committee do not wish to prescribe any one form of light or temporary construction as superior to another, they are of opinion that both the need for economy and the desirability of making school buildings as flexible as possible point to the extreme importance of investigating and experimenting with the potentialities of materials other than brick and stone. They also anticipate that increasing use may be made of the many synthetic materials like Indianite which are now being placed on the market and may be expected to become cheaper as their use increases.

15. Sites including Playgrounds and Playing Fields.—The considerations which should in the Committee's opinion determine the sizes of school sites are as follows:—

- (i) In selecting a site the total accommodation that is likely to be required ultimately rather than the needs of the moment should be the determining factor.

- (ii) Sites for modern schools should be much larger than those previously thought adequate. Modern school design requires much more space for convenient grouping of rooms and for their proper lighting and ventilation. Apart from this the importance now attached to outdoor activities e.g., gardening and the organised games and physical training calls for additional space.
- (iii) The responsible authorities should do their best to anticipate the need for new schools particularly in new centres of population and buy ample sites in good time.
- (iv) A school building should be kept as far as possible from the noise and dust of busy roads.
- (v) Sites should be reasonably level. There should be no undesirable surroundings and care should be taken to avoid land which is damp, made up or subject to floods.
- (vi) In urban areas, school sites should be conveniently accessible by road but every effort should be made to avoid an excess of road frontage.
- (vii) It is important that public services, e.g., sewers, water and electricity should be available.

An area of one to two acres according to the design and method of construction adopted, should suffice for the actual buildings of any school primary, middle or high, for not more than 500 pupils. Apart from the actual space required for the buildings, the site should also provide room for a playground for recreation or physical training, in the schools above the primary stage for a school garden and wherever possible for playing fields as well. The size of the playground will probably depend to a considerable extent on the size of the school and whether land in the locality is reasonably cheap and easy to obtain. It is unnecessary to prescribe any definite amount for any particular size or type of school but the following limiting factors may usefully be borne in mind. As the playground will be much used for physical training it should be roughly rectangular in shape and should have a minimum demension of 60'. The surface should be smooth, dry, as free as possible of dust and capable of being drained.

The following may be regarded as minimum areas:—

For	160 children	$\frac{1}{2}$ acre.
"	320 "	1 "
"	480 "	1½ acres.

At the same time the importance which the Committee attach to all school buildings being as clean and tidy as possible extends also to the playground. No school will gain anything from the possession of a playground so large that it cannot be kept in good order. While the Committee do not advocate the provision of a school garden, by which they mean an area suitable for practical instruction in horticulture, in the case of primary schools they certainly do not wish to discourage the provision on primary school sites of flower beds or even small vegetable gardens provided these can be kept in proper order. Even very young

children get pleasure and profit from learning about flowers and vegetables. Gardening or agriculture as a subject will not find a place in the curriculum of many middle and high schools in urban areas but it should do so in those in rural areas and adequate space should be available for practical work. The area required will depend on the syllabus to be taken and may vary from a minimum of one up to four or five acres.

Playing fields as distinct from playgrounds are not essential at the primary stage but should be regarded as necessary adjuncts to any middle or high schools whether for boys or girls. No educational development is more to be welcomed than the encouragement now given to organise games in the better girls' schools. If the time-table is properly arranged it will be found unnecessary to provide playing fields large enough for the whole school to play at the same time. While allowance must be made for the varying amounts of wear which different types of surface will stand, experience suggests that with good organisation and proper care the following areas will suffice for playing fields:—

For 100 children	2-3 acres.
" 320 "	4-5 "
" 480 "	6-7 "

Playing fields should be rectangular in shape to facilitate the economic siting of pitches, reasonably level and capable of being properly drained. Where the surface is grass, hockey and football goal areas should be frequently changed. Where they are at any considerable distance from the school itself changing and lavatory accommodation should be provided.

16. *Maintenance of School Buildings.*—The Committee are anxious to stress the fact that school buildings should always be kept in the best possible state of repair. They know of many instances where good buildings have been provided but owing to the fact that adequate provision has not been made for their maintenance, they have rapidly fallen into disrepair and apart from the adverse effect on their occupants their effective life has thus been materially shortened. The Committee strongly recommend that every educational budget should make adequate provision for the repair and upkeep of school buildings. There should be a regular rota for external and internal redecoration of schools, the period being determined by the nature of the construction and local climatic conditions. Temporary buildings, particularly when of wood, require frequent painting both inside and out and this is one of their obvious drawbacks. Another and probably the most important factor in maintaining school premises in the best possible order is the establishment of an efficient caretaking and cleaning service.

Particular attention has been paid to this in western countries and school caretaking cannot but be regarded as in effect a skilled trade. The Committee wish to endorse certain remarks by the Board of Education, England, in this connection which will be found below:—

"Schools should be planned so as to enable them to be well kept, with the minimum of trouble and expense. Attention to such details as the rounding off of all corners and the tiling of window sills, so as to facilitate the removal of dust, will produce buildings which are not only easier and cheaper to keep clean than the older schools, but also furnish

an object lesson to the children in the importance of a bright and clean environment. Ample accommodation should be provided for the caretaker. His function has usually been under-estimated in a school. It can, and should in fact, assume a great importance in the social training imparted by the school; dirty and ill-kept premises are a poor example for the teachers in their attempts to train the pupils in clean, tidy and healthy social habits. Apart from the paramount need for scrupulous cleanliness in the lavatories and offices, authorities and managers will be well advised to ensure that the floors, walls and windows of schools are kept clean. For this purpose it will be helpful to have at least one slop sink and water tap for the use of the caretaker, and where there is a considerable distance to walk from one end of the school to the other it may even be desirable to have such a sink attached to each set of lavatories. These sinks will be of considerable value also for such purposes as the cleaning of inkpots and the changing of water for flowers in the classrooms, both of which tasks are often performed in the ordinary wash basins with unfortunate results.

Provision should also be made for cupboards for the caretaker's necessities. Where the caretaker is employed full-time, but does not reside on the school premises, sanitary accommodation should be provided for him.

A covered space for dust-bins is necessary, so contrived that they are concealed from view."

The cleanliness of the school surroundings is not less important than that of the actual buildings and in both these respects the pupils should be trained to lighten the work of the caretaking staff. Bins for litter should be placed conveniently and failure to use them should be regarded as a matter for discipline. Finally Headteachers and Inspectors should be left in no doubt that the general cleanliness of the school buildings and grounds will be regarded as a very important factor in assessing its efficiency.

17. The Committee recognise, as they have stated earlier in this report that the great majority of the buildings at present used for school purposes in this country will not comply even with the minimum conditions prescribed in this report. They feel strongly that immediately circumstances permit—and they trust this will be in the near future—active measures will be taken to replace unsatisfactory buildings. Over and above this they assume that the time is not far distant when the need for providing education for the vast numbers of children not at present attending school will also receive recognition. To do this will mean in every part of India a building programme of vast dimensions. If this is to be made possible financially, a departure from the present system by which non-recurring expenditure is included in the annual budget becomes inevitable. The Committee understand that in Great Britain the financing of school construction out of revenue except where the amount involved is comparatively small is strongly discouraged by Government. Sites are purchased, schools built and furniture purchased out of loans spread over periods varying between 15 years in the case of temporary buildings, 30 to 40 in the case of permanent ones and 60 in the case of sites. By this means it is possible to embark on a heavy building programme without placing an intolerable burden on the budgets of one or two years. The Committee strongly recommend that all expenditure on

school sites, buildings and equipment exceeding Rs. 5,000 for any one item should be met from loan.

18. *General conclusions.*—The Committee realise that in the ordinary way it is convenient to summarise the conclusions and recommendations of a report. They feel, however, that the enquiry upon which they have been engaged covers so wide a field and necessarily involves so many matters of detail that any summary to be comprehensive would have to be intolerably long. Moreover, as they have tried to indicate from time to time, their object has not been to prescribe one particular type of building as pre-eminently suitable for each grade of school. They have endeavoured to lay down with sufficient precision certain conditions which must be observed in any building before it can be regarded to fit for use as a school but subject to the observance of these they feel that in a country as large as India where climatic conditions, local customs, available materials, resources and other factors determining construction vary so greatly the best service they can render is to supply the authorities responsible for building and maintaining schools with a number of suggestions to guide them in the planning of their buildings and a variety of actual plans among which they may make their choice. The main recommendation which the Committee wish to make is that if this report is approved generally by the Central Advisory Board, the material it contains, supplemented by plans and estimates which in many cases are already available, should be reproduced in book form. The Committee believe that a book on the design and construction of school buildings, revised from time to time in the light of up-to-date research and experiment, would be of real value and is precisely the form of practical assistance which the Board is in a position to render to Provincial Governments, Local Administrations, Indian States and all other bodies responsible for building and maintaining schools.

Sd.	JOHN SARGENT. (Chairman.)
"	W. H. F. ARMSTRONG.
"	S. M. AZAM.
"	J. M. BOTTOMLEY.
"	A. W. H. DEAN.
"	A. GOPALA MENON.
"	G. G. R. HUNTER.
"	JYOTINDRA MARKAND MEHTA.
"	J. LEITCH WILSON.
"	E. G. MCALPINE.
"	M. A. MIRZA.
"	S. N. MOOS.
"	J. C. POWELL-PRICE.
"	D. S. REDDY.
"	S. C. ROY.
"	K. G. SAIYIDAIN.
"	SURENDRA NATH KAR.
"	W. W. WOOD.

ANNEXURE I.

AGENDA FOR THE SCHOOL BUILDINGS COMMITTEE OF THE CENTRAL ADVISORY BOARD OF EDUCATION.

(N.B.—A summary of the information available as to the standards adopted or rules prescribed by Provincial Governments and States in connection with school buildings will be found in Annexure II.)

1. To consider whether the Committee should confine their attention to buildings for schools up to the end of the high school stage or whether it is desirable and practicable to extend the investigation to cover educational institutions beyond that stage.

(N.B.—The agenda has been prepared on the assumption that the Committee will not desire to deal in detail with educational buildings beyond the high school stage. The planning of Technical and Art Institutions, University Colleges and Universities and even of Training Colleges and Normal Schools will be determined by the particular nature of the work which they are called upon to undertake and as this will vary from institution to institution to a greater or less degree, the prescribing of any schedules of accommodation etc., that would be generally applicable would appear to be an impossible task. It may, however, be feasible to lay down certain principles which may be observed in the design and planning of buildings for institutions of these types. This question has been put down for discussion under item 13 of the Agenda.)

2. To determine the superficial and cubic space required for each pupil in an ordinary class room at the primary stage, and in an ordinary class room, science laboratory and room for practical instruction (a) at the middle stage and (b) beyond the middle stage.

3. To consider the maximum number of (a) boys (b) girls for whom accommodation should be provided in an ordinary class room at the primary stage, and in an ordinary class room, science laboratory and room for practical instruction (a) at the middle stage and (b) beyond the middle stage.

4. To fix with due regard to educational efficiency and the need for economy a schedule of accommodation for—

(a) Primary Schools—

- (1) with 2 classes;
- (2) with 5 classes;
- (3) with more than 5 class sections.

(b) Middle Schools (not forming part of high schools):—

- (1) with 3 classes;
- (2) with 6 class sections;
- (3) with 9 class sections.

(c) High Schools (with middle sections):—

- (1) with 5 classes;
- (2) with 10 class sections;
- (3) with 15 class sections.

(A High School which includes classes XI and XII will require separate consideration).

(N.B.—A class section means a sub-division of a class large enough to require a separate teacher.)

5. To fix sizes and dimensions of rooms in:—

(a) Primary Schools:—

- (1) ordinary class rooms;
- (2) rooms for kindergarten, infants or nursery classes;
- (3) halls (if any);
- (4) rooms for practical instruction (if any);
- (5) teachers' rooms;
- (6) store-rooms.

(b) Middle Schools (not forming part of high schools):—

- (1) class rooms;
- (2) practical rooms:—
 - (i) wood or metal work;
 - (ii) spinning and weaving;
 - (iii) domestic science;
 - (iv) other crafts.
- (3) elementary science laboratories;
- (4) halls (if any);
- (5) library and reading rooms;
- (6) teachers' rooms;
- (7) store-rooms.

(The size and dimensions of the area required for school gardening and agricultural instruction will be considered under "Sites").

(c) High Schools (with middle departments):—

- (1) class rooms;
- (2) practical rooms:—
 - (i) wood or metal work;
 - (ii) arts and crafts;
 - (iii) domestic science;
 - (iv) geography.
- (3) Laboratories:—
 - (i) junior;
 - (ii) senior,
 - (4) halls;
- (5) gymnasia;
- (6) libraries and reading rooms;
- (7) dining rooms;
- (8) teachers' rooms;
- (9) store-rooms.

6. To consider the special requirements of Technical High Schools or Junior Technical Schools not accommodated in Senior Technical Institutions.

7. To consider whether any special accommodation is needed in the case of schools for physically or mentally defective children.

8. To consider what additional accommodation should be provided in any school which is likely to be used for adult education purposes.

9. To consider the possibility of adopting adequate standards in connection with:—

- (a) lighting;
- (b) heating;
- (c) ventilation;
- (d) sanitation,

and to prescribe the requisite standards in each case.

10. To consider the nature and amount of the accommodation required for hostels for 25, 50 and 100 boarders.

11. To consider the main issues arising in connection with furniture and equipments for:—

- (a) ordinary class rooms in:—
 - (i) Primary schools;
 - (ii) Middle schools;
 - (iii) High schools;
- (b) kindergarten rooms;
- (c) practical rooms:—
 - (i) wood and metal work;
 - (ii) spinning and weaving;
 - (iii) arts and crafts;
 - (iv) domestic science;
 - (v) geography,
- (d) laboratories;
- (e) halls;
- (f) gymnasium;
- (g) libraries and reading rooms;
- (h) dining rooms;
- (i) hostels.

12. To consider the general principles which should determine the arrangement of school buildings of different types with a view to securing the maximum efficiency from the point of view of school organisation.

13. To consider what general principles, if any, can be usefully laid down in connection with the design and planning of institutions beyond the high school stages.

14. To consider in the light of local climatic conditions the possibility of adopting various forms of temporary or semi-permanent construction as an alternative to pucca buildings.

15. To consider the minimum areas required for sites and play grounds for different types and sizes of schools in (a) urban and (b) rural areas.

16. To prepare rough sketch plans and estimates for school buildings of various types.

17. To consider what steps should be taken to maintain in the best possible condition school sites, buildings, furniture and equipment.

18. To consider the financial problems arising in connection with the carrying out of a substantial building programme.

19. Any other business.

ANNEXURE II.

Item 2 of the Agenda.

Province.	Minimum floor space required for a pupil in a class-room in			Minimum height of a class-room in (from floor to underside of beam).		Remarks.
	Primary Schools.	Middle and High Schools.	Technical Schools and Training Colleges.	Primary Schools.	Middle and High Schools.	
	Sq. ft.	Sq. ft.	Sq. ft.	Ft.	Ft.	
Madras	9½	11	15	10 to 12	12* to 14	With the availability of funds, floor space in excess of the minimum should be provided. Rooms intended to be used for practical work, etc., should be considered each on its own merits.
Bombay	10 to 12	12 to 15	15 to 20	†12 to 14	†12 to 14	Ditto.
Bengal	10 to 15	10 to 15	Not available.	12 to 14	†12 to 14	No single school-room should be more than 600 Sq. ft. nor designed for more than 40 children.
Punjab	9	12	do.	(a)	(a)	
Baluchistan	9	12	do.	(a)	(a)	
Travancore	8	8	do.	(a)	(a)	

* The same for technical schools and training colleges.

† When the total floor space exceeds 600 sq. ft., the height must be at least 14 ft. if the area exceeds 360 sq. ft., the height not to be less than 13 ft.).

(a) Information not available.

Item 3 of the Agenda.

Province.	Maximum number of pupils in a class-room for whom accommodation should be provided.	Remarks.
Bengal	50	No room for less than 24 children, and no infants' room for more than 30 infants.
Punjab	45	
Baluchistan	40 in Middle and High and 30 in primary class-room.	
Travancore	Not less than 50 pupils.	The maximum number of pupils to be accommodated in any laboratory, workshop, etc., to be determined by the Inspecting staff.

Item 5 of the Agenda.

Province.	Type of room.	Dimensions of a room in a Primary School.			Estimated cost. Rs.	Remarks.
		Length ft.	Breadth ft.	Height ft.		
<i>School for 150 children.</i>						
Madras	(a) Store room	14	7	9	...	
	(b) Class I (2 rooms)	24	14	9	...	
	(c) Class II (1 room)	20	14	9	...	
	(d) Classes III and Classes IV and V (1 room for both).	17	14	9	...	
<i>School for 100 children.</i>						
	(a) Store	8	12	9	...	
	(b) Class I (2 rooms) 20 children in each.	20	12	9	...	
	(c) Class II (20 children).	16	12	9	...	
	(d) Classes III and IV (28 children).	20	12	9	...	

*Information collected from standard plans.

Item 5 of the Agenda—contd.

Province.	Type of room.	Dimensions of a room in a Primary School.			Estimated cost. Rs.	Remarks.
		Length ft.	Breadth ft.	Height ft.		
Bombay	School for 50 children.					
	(a) Store . . .	6	12	9	...	
	(b) Class I (25 children).	20	12	9	...	
	(c) Classes II and III.	16	12	9	...	
	Class room for 30 children.	16	16	10	...	1. The same as in Madras. 2. The size and dimensions of all the rooms to be the same.
Bengal	Class room for 27 children.	18	15	12	...	The sizes of class rooms to be kept within the following dimensions : L. B. H. Min. 18' 15' 12' Max. 26' 24' 14'
	Class room for 30 children.	26	22	18	...	No single class room to contain more than 600 sq. ft. of floor space.
Punjab	Four-roomed school	15	15	9	...	Each room to be of uniform size.
Bihar	Lower Primary (2 roomed) school.	23	12	12½	...	Verandah 4-ft. wide.
	Upper primary (3 roomed) school.	16	15	10½	...	Without verandah.
Orissa	Two roomed primary school for four classes.	30	15	13½	...	Verandah 5-ft. wide.
	Three roomed primary school for four classes.	(a) 20 (for 2 rooms each)	15	13½	...	Verandah 5-ft. wide.
		(b) 30 (For 3rd room).	15	13½	...	
	Three roomed primary school for six classes.	30	15	13½	...	Verandah 5-ft. wide.
	Three roomed primary school for five classes.	(a) 30 (For 2 rooms each)	15	13½	...	Do.
		(b) 20 (For 3rd room).	15	13½	...	
Assam	A single teacher school room.	30	16	Not given.	...	Verandah wide. 6-ft.
	Two teachers school room.	50	16	Do. .	...	Do.
	Three teachers school room.	75	16	Do. .	...	Do.
North-West Frontier Province.	(a) One room . . .	20	15	Do. .	...	Verandah wide. 10-ft.
	(b) Second room . .	18'10"	15	Do. .	...
	(c) Masters room . .	12	8'10"	Do. .	...

Item 5 of the Agenda—contd.

Province.	Type of room.	Dimensions of a room in a Primary School.			Estimated cost. Rs.	Remarks.
		Length ft.	Breadth ft.	Height ft.		
Ajmer-Merwan- ra.	(a) Store room	8	8	12	...	
	(b) 2 Class rooms	16	15	12	...	
	(c) Water room	8	8	12	...	
Baluchistan	(a) School at Hudda (4 roomed).	24	15	10	...	Verandah wide, 10 ft.
	(b) Headmaster's room.	10	15	10	...	
	(a) 2 roomed school at Kawas.	24	15	9½	...	Verandah wide, 8 ft.
	(b) Store room	8	15	9½	...	
	A general two roomed school.	20	15	8½	...	Verandah wide, 8 ft.
<i>Government Primary School, Quetta.</i>						
Sind	Two Kindergarten rooms.	50½	20	15	..	
	8 Class rooms	25	20	15	..	
	Headmaster's room	18	18	15	...	
	Staff room	18	20½	15	...	
	One teacher school room for 30 boys.	16	16	12	Rs. 1,016 (for pucca construction).	Verandah wide, 8 ft.
Baroda	Two teachers school —two rooms —each for 30 boys.	16	16	12	Rs. 2,713 (2 teachers). Rs. 4,110 (3 teachers).	Verandah wide and long, 8 ft. 32 ft.
	(3, 4, 5 and 6 roomed school).	16	16	12	Rs. 5,137 (4 teachers). Rs. 6,164 (5 teachers). Rs. 7,151 (6 teachers).	
	<i>Standard design for cheap village schools.</i>					
	1, 2 and 3 roomed school (each room for 40 boys).	20	16	10	Rs. 1,800 (1 roomed). Rs. 3,600. *Rs. 2,000 (2 roomed). Rs. 5,400. *Rs. 2,950 (3 roomed). Rs. 8,000.	Verandah wide, 6 ft.
	<i>4 units school</i>					
	(a) Two outer rooms (each for 40 boys.)	16	22	10	*Rs. 4,650 (2 roomed). Rs. 9,500.	Verandah wide, 6 ft.
	(b) Two other rooms	20	16	10	*Rs. 5,750 (5 roomed). Rs. 11,000 (6 roomed). Rs. 12,500 (7 roomed). Rs. 14,000 (8 roomed).	(5, 6, 7 and 8 units schools having same dimensions).
	(c) Store room and Water room.	16	6	10		

*Without passage.

Item 5 of the Agenda—contd.

Province.	Type of room.	Dimensions of a room in a Primary School.			Estimated cost. Rs.	Remarks.
		Length ft.	Breadth ft.	Height ft.		
Mysore	<i>A design.</i>					
	(a) Two rooms	12	15	12	...	
	(b) Third room	24	12½	12	...	
	<i>D Design.</i>					
	(a) 1 Class room	12	10	Not given.	...	
	(b) Open air class	16	12	Do.	...	
	(c) Headmaster's room.	12	10	Do.	...	
Travancore	Primary school for 200 pupils.					
	6 rooms (separated by wooden partitions).	20	18	8	...	
Kashmere	<i>Basic School.</i>					
	(Type plan No. 1.)					
	3 roomed school	20	10	14	Rs. 1,831 (without verandah). Rs. 2,051 (with verandah).	Verandah 8-ft. wide.
	(Type plan No. 2.)					
	(a) Four rooms	20	16	14	Rs. 3,260 (without verandah).	Do.
	(b) One corner room	24	16	14	Rs. 8,550 (with verandah).	
	(Type plan No. 3.)					
	(a) Six rooms	20	16	14	Rs. 4,064 (without verandah).	Verandah 8-ft. wide.
	(b) One corner room	24	16	14	Rs. 4,740 (with verandah).	
	(Type plan No. 4.)					
	(a) Six rooms	20	16	14	Rs. 5,995 (without verandah).	Verandah 8-ft. wide.
	(b) One corner room	24	16	14	Rs. 6,595 (with verandah).	
	(c) Craft room	30	16	14	...	
	(d) Teacher's room	18	16	14	...	
	(e) Office room	16	16	14	...	

Item 5 of the Agenda—contd.

Province.	Type of room.	Dimensions of a room in a High School.			Estimated cost. Rs.	Remarks.
		Length ft.	Breadth ft.	Height ft.		
Bengal .	(a) 8 rooms—each for about 30 pupils.	26	22	Not given.	...	
	(b) Teachers' room .	22	16	Do.	
	(c) Library and Office.	22	16	Do.	
	(d) Central Hall .	52	26	Do.	
	(e) Ante room and cloak room.	52	16	Do.	
Punjab .	<i>Government High School.</i> (Single section.)					
	(a) 4 Class room	23	22	16	...	Verandah 8-ft. wide.
	(b) 2 Class rooms	22	23	16	...	
	(c) Drawing room	25	25	16	..	
	(d) Sanskrit room and Arabic room.	22	12	16	...	
	(e) Science and Laboratory.	25	45	16	...	
	(f) Headmaster's room.	10½	14	10	...	
	(g) Office	10½	14	10	...	
	(a) 10 rooms .	20	20	13	...	Verandah 6-ft. wide.
	(b) 2 rooms .	25	20	13	...	
Bihar .	(c) Library .	15	20	13	..	
	(d) Office .	15	20	13	..	
	(e) Hall .	20	40	Not given.	...	
	(a) 8 rooms .	24	17	Do.	(1) Covered veran-dah 10-ft. wide. (2) Another veran-dah 7-ft. wide.
	(b) Science room .	32	24	Do. .	...
Assam .	(c) Geography and Drawing room.	32	24	Do. .	...
	(d) Manual work room.	32	24	Do. .	...
	(e) Boys' Common room.	32	24	Do. .	...
	(f) Library .	24	17	Do. .	...
	(g) Office room .	16	17	Not given.	...	
	(h) Headmaster's room.	8	17	Do. .	..	
	(i) Teacher's room .	24	17	Do. .	...
	(a) 8 Class rooms .	23	22½	18	...	Verandah 8-ft. wide.
	(b) Drawing room .	31	25	18	...	
	(c) Sanskrit room .	17	22½	18	..	
North-West Frontier Province.	(d) Arabic room .	17	22½	18	...	
	(e) 2 Class rooms .	23	24½	18	...	

Item 5 of the Agenda—concl.

Province.	Type of room.	Dimensions of a room in a High School.			Estimated cap. Rev.	Remarks
		Length ft.	Breadth ft.	Height ft.		
Baluchistan	(f) 3 Class rooms	22½	23	14	...	
	(g) Science Practical room.	25	11	18	...	
	(h) Science Lecture room.	27	22½	15	...	
	(i) Staff room	16	16	14	...	
	(j) Headmaster's room.	16	15	18	...	
	(k) Record room	21	7½	13	...	
	(e) 3 rooms	22	27	Net given.	...	
	(b) 6 rooms	23	22	Do.	...	
	(c) Kindergarten room.	23	40	Do.	...	
	(d) Language room	22	23	Do.	...	
	(e) Staff room	22	20	Do.	...	
	(f) Science room	22	27	Do.	...	
	(g) Drawing room	23	25	Do.	...	
	(h) Record room	12	22	Do.	...	
	(i) Headmaster's room.	12	18	Do.	...	

Item 9 of the Agenda.

(a) Lighting.

Madras.—For admission of light and air, there should be windows. (a) They should be placed at regular intervals so as to ensure uniformity of light. (The edge of the last window in the north wall should be behind the last row of pupils).

(b) Window sills should not be more than 4 ft. from the ground in rooms in which the scholars are seated at desks. When pupils sit on the floor the sills should come to within 2½' or 3' of the floor level. Windows for subsidiary lighting may have their sills more than 4' from the floor.

(c) The window area should not be less than one-fifth of the floor area and wherever possible the principal lighting should be from the north.

Bombay.—(a), (b), (c) as in Madras.

(d) The light from north windows should not be masked by sun bonnets or by verandahs except in localities where the sun glare is very great.

(e) The windows on the south aspect are subsidiary and are chiefly for ventilation.

(f) Sky-lights properly so called should never be placed in class rooms. Where, owing to difficulties of situation, some form of top lighting is unavoidable, the best form is that commonly adopted in factories, and machine shops with the light coming in from the north.

Bengal.—Windows serve two purposes—(a) admission of light, (b) admission of air. No window should be provided merely for external architectural effect. Every part and corner of the school should be well lighted, and the sky should be visible from every seat in a class-room. To fulfil this requirement, the angle of aperture should not be less than five degrees of an arc in any part of the room.

Unilateral lighting of class-rooms should be adopted, the light being admitted from the left side of the pupils. Where left light is impossible, right light may be allowed. Direct front light is not allowable in any case. The whole window area should not be less than one-fifth of the floor space, but in very confined sites one-fourth may be required. The main effective light, but not less than one-half of the prescribed window area, should be admitted from windows with a north aspect. Windows on the south aspect, if provided, should be merely subsidiary and chiefly for ventilation.

Except in localities where the sun glare is very great, the light from the north windows should not be masked by any sun bonnet or hood, shade or verandah.

The windows on the north may be placed at regular distances so as to ensure uniformity of light. They should be placed as far to the rear of the class-room as possible. The edge (glassline) of the last window (the window furthest to the teacher) in the north wall should be behind the last row of pupils.

The wall at the teacher's end should be left blank or blind (windowless) for a length of nine feet, as this space is kept between the teacher and the front of pupils.

The mullions or piers between the windows should be as narrow as safety of construction will permit, as thick heavy mullions not only obstruct a great amount of light, but they also use up a great deal of the effective wall space. To add strength and reduce width, iron mullions with heavy flanges or webs should be used. The window frames may be directly bolted to such mullions, the outer portions of which may be made wedge-shaped, running nearly to a sharp edge.

The window sills should be placed not more than four feet and not less than three feet and a half above the floor of rooms in which the pupils are seated at desks. For rooms in which the pupils sit on the floor, the sills should come to within three or two and a half feet.

The window heads should reach as near the ceiling as possible, which need not be more than ten to twelve inches. The tops of the glass surface of the windows should not be less than twelve feet above the floor. Unless the tops of the windows be more than fourteen feet above the floor, the plan should show no space more than 24 feet from the window wall in any class-room.

All window spaces should be fitted with hinged and glazed windows. All wood-work around the window and between the glass panes should be bevelled. The panes of windows may be either of clear (not frosted or ground) or ribbed (prismatic) glass, but the glass panes should not be broken up too much.

Skylights properly so called should not be placed in school-rooms or class-rooms. They may be allowed in central halls having ridge or apex ventilation.

Bihar has issued instructions similar to Madras.

Artificial lighting.

Bengal.—If the prescribed rules are followed to provide the admission of the requisite amount of day light, artificial light should not be needed for day schools in India. But in evening and night schools, as well as in school buildings used for educational purposes after school hours, artificial illumination should be provided. Direct diffused lighting should be the rule. Indirect light, such as light reflected from the ceiling and coloured surfaces, should be avoided.

A proper system of school-room illumination should be installed to meet the following requirements:—

- (a) The light should be produced with as little contamination of the air as possible.
- (b) The heat production should be low.
- (c) The light should not be rich in the rays of the spectrum which are irritating to the eye.
- (d) The light should be steady and the lamps should not be subject to rapid deterioration.
- (e) The light should be well diffused so as to secure uniform illumination throughout the room.
- (f) The light should be properly shaded so as to prevent points of great brilliancy from coming within the field of vision and to avoid annoying and disturbing shadows from falling on the work.
- (g) The amount of light necessary varies according to the purpose for which it is required. More is needed for fine work than for the ordinary class exercises. The illumination of the work on the desk should be somewhat superior to that of the surrounding objects, but it should not be greatly in excess. The proper location of the lighting fixtures is of the greatest importance.
- (h) The cost of installation and maintenance should be moderate.
- (i) The fixtures should be of durable construction and easy to clean and repair.

Electric incandescent gas, or acetylene gas light is to be preferred in the order stated, and should be used with diffusing prismatic reflectors. The spacing of lights may be at intervals of six feet, measured from the first light, placed a little to the left of the first seat.

(b) *Heating.*

Bengal.—Provision should be made for the warming during the winter of schools located in cold or hilly places. 30 feet of heating surface should be allowed for every thousand cubic feet of air space. A low pressure hot water system in conjunction with open fires will be most advantageous. The fire-place should be located at the teacher's end of the room in the corner remote from the door, in order to keep space for the teacher's desk and blackboard. Radiations should be placed under the windows. A thermostat should be fixed in every class-room heated by an indirect method.

(c) *Ventilation.*

Madras, Bombay, Bengal.—Unless there are windows reaching to the top of the wall and capable of being opened, ventilators are necessary near the top of the wall on both the north and south aspects. The

ventilators should be regularly distributed in the same way as the windows. For each pupil 48 square inches of open ventilator should be provided. Gratings in floors should not be allowed. Such a provision will not, however, be necessary when the walls are short and the space above their height is enclosed by bamboo or other lattice work.

(d) Sanitation.

Bengal.—In sewered towns where it is practicable to install water-closets no such closet may be located within the school building, but at a short distance, and be completely disconnected from the latter. The distance should not be less than twenty feet.

The septic tank system may be adopted in country schools.

Service privies may be provided only when sweepers are available; whose work can be supervised by a member of the school staff. Such privies should not be placed nearer than forty feet to any school building. They should be so situated that the prevailing wind will not blow from them in the direction of the school.

Separate privies and approaches should be provided for boys and girls, and the same passages or corridors may not be used by both the sexes. Separate provision for teachers and pupils should also be made.

No privy shall be located within a distance of fifty feet from any source of water supply.

The number of closets for boys, girls and infants may be provided on the following scale:—

(M)

	Number of pupils.	Boys.	Girls.	Infants.	Girls and Infants.
Under . . .	30	1	2	2	2
" . . .	50	2	3	3	3
" . . .	70	2	4	4	4
" . . .	100	3	5	6	6
" . . .	150	3	6	6	6
" . . .	200	4	8	8	7
" . . .	300	5	12	12	8
" . . .	500	8	20	20	12

For boys, urinal stalls at the rate of 4 per cent, occupying 10 running feet of urinal space should be provided in addition to closets.

Urinals should be of impermeable material for their floors, sides and backs—patent stone, glazed tiles, good quality of slate, hard seamless marble, artificial stone ware or white glass slabs or plates shall be admissible for the purpose.

No closet should be less than two feet and a half, and not more than three feet, in width in the clear with a minimum depth of four feet. More room may be allowed to teachers and children. Only one set may be allowed in each closet.

A double row of privies or urinals placed back to back should be disallowed.

Every privy or urinal should be so constructed as to be flooded with sunlight during some part of each clear day, and under any condition, should be thoroughly lighted and ventilated.

The privy floor should be made of some impervious material, with an even surface capable of resisting disintegration and of being properly washed down. It should be sloped inwards.

The facings of the privy walls should be of a smooth, non-absorbant substance, and should extend to not less than three feet above the seats or squatting plates. Light glazed bricks or white glazed tiles form suitable wall surfaces, as they prevent the absorption of light and render it easy to scrub and disinfect them. Unglazed bricks cannot be allowed to be used for privies, as they are absorbant and may become highly offensive. Iron sheeting either flat or corrugated, may be allowed if properly attended to.

Every closet should be provided with a $\frac{3}{4}$ th door short of both bottom and top—not less than three inches at the bottom and not less than 6 inches at the top. The tops of the back walls should have rectangular ventilators.

As a screen for privies, a fenestrated brick wall or a sheet of corrugated iron may be used.

All water-closets and urinals should be provided with proper service cisterns, which, together with the outlet therefrom, should be capable of giving a sufficient flush.

Item 10 of the Agenda.

Hostels and Dormitories.

Bengal.—In the case of single rooms or cubicles the minimum floor space to be provided should be 96 square feet. Each such room or cubicle should be independently ventilated or lighted.

Rooms for the accommodation of not less than three, but not more than four, occupants should provide 65 square feet of floor space a head, and those for five or more pupils a minimum of 60 square feet a head. Sleeping-rooms, each measuring $16\frac{1}{2}' \times 16'$ and intended for the accommodation of four inmates, are recommended as convenient and economical in design.

The minimum floor area to be provided in dormitories should not be less than 60 square feet a head.

The scale of privy accommodation should be double of that prescribed for day schools (under item 9). Urinals may be in the same proportion as for day schools.

Item 10 of the Agenda—*contd.*

Province.	Type of room.	Dimensions of a room in a Boarding House			Estimated cost. Rs.	Remarks.
		Length ft.	Breadth ft.	Height ft.		
<i>Boarding House for 100 boys.</i>						
Punjab	(a) 4 Dormitories each for 16 boys.	45	18	15	58,500	Verandah wide. 8-ft.
	(b) 2 Dormitories each for 16 boys.	50	18	15	...	
	(c) 1 Reading room	18	20	15	...	
	(d) 2nd Reading room.	10	10	15	...	
	(e) Sports' Godown.	18	10½	15	...	
	(f) Bathing place	10'10"'	19½	11	...	
	(g) Space for lavatories.	20'11"	7½	—	...	
	(h) Office	12	18	15	...	
	(i) Superintendent's sitting room.	10	12	15	...	
	(j) Superintendent's living room.	12	12	15	...	
	(k) Bath room and Kitchen for Supdt. (each).	7	7	11	...	
	(l) 3 Dining rooms	20	12	12	...	
	(m) 3 Kitchen rooms	15	10	12	...	
	(n) 3 Store rooms	8	8	10	...	
	(o) 3 Fuel rooms	8	7½	10	...	
	(p) 3 Water rooms	6	6	10	...	
	(q) 3 Washing platforms.	3	5	—	...	
	(r) 2 rooms for cooks	12	8	10	...	
	(s) 4 Servants rooms	12	10	10	...	Verandah wide. 6-ft.
	(t) 2 rooms for sweepers.	12	10	10	...	Do.
<i>Boarding House for 50 boys.</i>						
	(a) 2 Dormitories for 16 boys.	18	45	15	Rs. 36,100	Verandah wide. 8-ft.
	(b) 1 Dormitory for 18 boys.	50	18	15	...	Do.
	(c) 1 Reading room	10	10	15	...	Verandah wide. 6-ft.
	(d) Bathing place	10½	9'7½"	11	...	Do.
	(e) Space for Lavatories.	10'10"	(approx.) 7	—	...	Do.
	(f) Office	12	18	15	...	
	(g) Superintendent's sitting room.	10	12	15	...	Verandah wide. 7-ft.

Item 10 of the Agenda—contd.

Province.	Type of room.	Dimensions of a room in a Boarding House.			Estimated cost. Rs.	Remarks.
		Length ft.	Breadth ft.	Height ft.		
	(h) Superintendent's living room.	12	12	16	...	
	(i) Superintendent's Bath room.	7	7	11	...	
	(j) Superintendent's kitchen.	7	10	11	...	
	(k) 2 Dining rooms	20	12	12	...	
	(l) 2 Kitchen rooms	15	10	12	...	
	(m) 2 Store rooms .	8	8	10	...	
	(n) 2 Fuel Godown	8	7½	10	...	
	(o) 2 Water rooms .	6	6	10	...	
	(p) 2 Cooks' quarters.	8	12	10	...	
	(q) 2 Servants' rooms.	12	10	10	...	Verandah wide.
	(r) 1 Sweeper quarter.	12	10	10	...	Do.

ANNEXURE III.

Note on Pisé system prepared by Mr. Sheikh Ahmad, Lahore.

The art of building is one of the three fundamental needs of society for it provides shelter from the elements. Although in many schools students are taught to satisfy two of the three dominant needs, that is food and clothing, it is a pity that not enough emphasis is given to the art of living, with the consequence that the people of India are quite unaware of the fact that nice homes, beautiful school buildings and healthy surroundings will affect the future health and happiness of their children. It is generally recognised that the first impression created upon the mind of a child and his environments, are the two factors which influence his outlook on life. It is for this reason that equipment and building of schools along with well trained and efficient teachers are receiving more attention all over the world. In a place like India which has been for centuries the home of the finest of crafts and of industries, the present deficiency of new ideas and designs in the industrial produce of the country, can be ascribed to the lack of proper home and school environment which have gradually cramped the growth of artistic and aesthetic appreciation of the people.

In London a test was carried out to prove the authenticity of the idea that bad surroundings have a bad effect upon the mind of a child. It showed that the children bred in the slums were dull in matters of art, for their background and environment made no appeal to their aesthetic sensibility. It is for this reason I feel that along with reading, writing and arithmetic, the new generation of India and especially of her villages should be given instruction to build simple, cheap, appropriate and charming houses which will satisfy the growing needs of the educated class of

people. Otherwise the dissatisfaction of being in ugly surroundings will drive them out of their homes and they will not be of any service or value for the future development of the countryside.

To carry out this work to a successful issue we should commence with the building of schools, for it is here that the new generation will spend most of its time. The experience of beautifully designed, well ventilated tastefully decorated, cool, or easily heated, school buildings will automatically affect the home life of the people in general and their industries in particular. Where new school buildings are not necessary, the students can carry out repairs in the existing buildings in accordance with the scheme. The teachers and the students may be trained to look after the repair of the buildings and apart from saving a considerable amount of money for the Department of Education, they will learn a most useful craft. Some of them may later take up the study of architecture seriously and become architects and town planners, and continue to work as a good architect in harmony with the natural beauty of each locality throughout India.

Using local labour and materials.—The following school building project may appear difficult on paper but in reality it is very practical and comparatively quite simple, because of the following facts:—

1. In building schools or houses, the local materials such as wood, stone or bricks and earth are employed to their best advantage. Earth is a material which is identified with the neighbourhood and when used properly will not only be cheap but very durable, growing in strength day by day. The defect in the present method of building with mud or other types of earth, carried out in some parts of India, is that it has neither the durability nor the beauty of *Pisé* work. This is because of the inherent faulty system in choice, treatment of earth and construction. This includes the foundation, actual building of the walls and their waterproof coating and plastering.
2. The equipment needed for *Pisé* work is not only very small but very inexpensive. Hardly a dozen tools are needed for ramming the earth and a few types of shuttering and a few shapes of moulds for making *Pisé* blocks.
3. In the beginning average students and teachers under the guidance of a misteri or two, can build beautiful and airy school buildings in a very short time when the design is supplied by the Department of Education under whose expert advice the entire work will be carried out. After a short training the teacher himself can take over charge of the construction. For the durability of *Pisé* building, it is essential that it should have a pucca foundation which can be constructed either from the local stone or bricks. In contrast to an entire brick building, *Pisé* building needs only a nine inch foundation which obviously saves time, labour and expense.
4. Similarly the construction of *Pisé* walls is a very quick process and it is possible to build a structure in about one-third of the usual time.

5. The strength of *Pisé* structure depends upon the choice of the earth and the special method of ramming, whereby all the air is driven from the material and the whole building becomes a homogeneous unit which strengthens as the years go by. I remember in America seeing a farmer trying to break an old *Pisé* wall for which he was using a pick-axe as one would for a cement building.
6. Another beauty of *Pisé* building is that it is comparatively cool in summer and warm in winter. The upkeep of these buildings is negligible. The usual colour of the building is light ochre but it is also possible to give it any other colour along with the waterproof coating.
7. It is desirable to evolve new and suitable designs for the various climates of the country. In cold climates the arrangement of the class rooms should be such that four rooms should be heated at once with one fire place which means a saving in the building and heating expense as well as leaving more space for the classes. For the warm climates cross ventilation, wide verandahs and the use of larger windows instead of too many doors is very essential.

The furniture of the future school buildings should be in harmony with the simplicity of the building. The designer should take into consideration the fact that it should be beautiful, useful and comfortable, for it is only when utility is combined with beauty that perfection is reached.

ANNEXURE IV.

Note on primary school buildings in Rural Areas by the Director of Public Instruction, Central Provinces and Berar.

The various types of buildings have all the common defect that they admit insufficient light, while most of them are insufficiently ventilated. This is largely due to the obsession prevalent both among school authorities and among the villagers themselves that a school building should approximate to a village house, quite forgetting that the village house is not used for reading or writing but only for cooking and sleeping and therefore does not require the same degree of lighting. It is also due to the familiarity of the school authorities with the old standard pattern of a four-walled brick building. In every type of building, then, whether the roof has rested on the walls or not, walls have always been built, right up to the roof either of solid mud, in cases where the walls were built to support the roof, or thin Sindhi walls of bamboo coated in mud and plaster, where the walls were intended merely for lateral protection against the wind and rain. But in every case the effect was the same. The day light was completely blotted out, except to the extent that it might enter through the diminutive windows high up in the wall, or through the single door, usually kept closed. The reasons usually given for building these Sindhi walls right up to the roof are two:—one for protection against rain and the other for protection against thieves. Neither are valid. Lateral protection against rain, except on the wind-ward side, would be afforded equally well by half-walls stopping short of the height of the exterior edge of the eaves: the intervening space between the half-wall and the roof

could either be open or filled with bamboo lattice work. As regards protection against thieves, it is well-known that school masters place no credence in the power of the flimsy Sindhi walls to keep off thieves who, in any case, could make their entry through the thatched or tiled roof with the greatest of ease. And so, as a matter of fact, village Head-masters never leave anything of value in the school premises, but usually make a habit of removing daily the school registers and the Time-Piece. (I have heard of only one case of theft from the village school, viz., the Time-Piece, and this only in a single instance).

2. It must, however, be admitted that the need for protection against rain is a very real need, and no Sindhi wall or even solid mud-wall will stand up to a monsoon if not given lateral as well as vertical protection from the rain. A solid brick wall requires, of course, only vertical protection: but few villages know how to make burnt bricks; and the cost of importing bricks is prohibitive. Lateral protection to mud and Sindhi walls is sought to be given in many cases by placing Tattis made of grass against the wall. This is to a certain extent effective, but tends even further to diminish the scanty allotment of day-light, and in the monsoon the class rooms become darker than ever. There is no doubt that the staggering statistics of defective eye sight in high schools and colleges revealed by Medical Inspection is mainly, if not entirely, due to reading and writing in deficient day-light in our primary schools.

3. It is clear, therefore, that a new type of school must be designed for rural areas and a design, which it is believed will meet all requirements, is submitted herewith. The following points should be noticed:—

- (i) Instead of the usual marquee-tent-shaped roof, a shed-shape has been substituted. This will permit of indefinite extension as fresh class rooms are required.
- (ii) The school is to be orientated in such manner that the shorter side of the oblong faces the prevailing monsoon wind.
- (iii) On this side a wall of weather-boards is designed reaching from the ground right up to the apex of the roof, thus affording complete lateral protection from rain.
- (iv) No brick is employed at all in the building, the plinth consisting of mud overlaid with cow-dung.
- (v) The roof projects 3 ft. on the windward side, thus screening the weather-board wall from roof drippings: it also projects 3 ft. on the lateral side sufficiently to cover the verandahs and afford protection from the wet to the mud half-walls that enclose the class rooms on the lateral sides.
- (vi) The bamboo lattice work which reaches from the mud half-wall to the roof supplies adequate ventilation and lighting for the class room, and at the same time permits of the lowering of rolled matting in the event of excessive wind, dust or glare. Naturally the matting will only be let down on one side at a time, which will ensure adequate ventilation and lighting from the opposite side.
- (vii) The interior accommodation, 16×24 ft., is designed to suit a single class of 40 pupils, allowing 8 sq. ft. per pupil and a further frontage of 4×16 ft. for the master and the black board. In the event of small enrolment, which is inevitable

in rural circumstances where it not infrequently happens that the male population of school-going age of the centre and the feeder villages combined does not exceed 40, it will be possible to hold 2, 3 or even 4 classes in this single room without undue congestion; and according to the demands of classes or the distribution of light at different times of the day, classes can be held facing in any of the four directions. As the school expands with the growing popularity of education and, it is to be hoped, the gradually increasing attendance of girl pupils, the class room space can be easily extended by prolonging the roof in the direction away from the wind-ward side and prolonging the lateral half-walls to the same extent.

- (viii) Since adequate light and ventilation are provided by the lattice work it is not necessary to provide them through the class room entrance, which has therefore been confined in the plan to a single entrance on one of the lateral sides only at the end of the class room farthest from the wind-ward side.
- (ix) All the materials employed in the construction, with the exception of the weather-boards are such as are available to the villagers free of cost, or can be so made available by the Malguzar or the Forest Department; and the labour required for their utilization in the erection of school buildings is such as the villagers themselves can supply. Even nails (except for fixing the weather-boards) are not necessary, as jointures can be effected by the simple method of creeper lashings, as the villagers use in the construction of their own dwellings.
- (x) As regards the weather-boards, at present in many villages of the Central Provinces and Berar there is no carpenter. The only implement the villager uses in dressing his wood is the axe. Consequently it is not to be expected that the villagers will be able to fashion their own weather-boards. Here again, nails would be required to fasten the weather-boards to the *ballis* (vertical wooden posts) and these the villagers will not be able to supply. It will therefore be incumbent on the school authority or the Government to supply the weather-boards and the requisite nails. It should not be unduly optimistic to hope that the Forest Department will supply the necessary weather-boards and that the school authority will supply the necessary nails, until such time as the introduction of Manual Training into the Primary School Curriculum will secure in each village an adequate knowledge of the use of the carpenter's plane, the saw and the hammer.
- (xi) It is estimated that the cost of erecting a single class room, 16 x 24 ft. on the plan submitted will not exceed Rs. 18 (the cost to the Forest Department and the school authority for weather-boards and nails) assuming that the other materials are provided by the villagers, that the Forest Department or the Malguzar makes no charge for the cutting of the timber and bamboos necessary, and that the villagers, as they have already done in many instances, volunteer their labour. However, even if this is not the case and the school is erected by a contractor it is estimated that the total cost should not exceed Rs. 162.

4. In cities and municipalities where the population is relatively constant and the demand for primary schools permanent, we may continue to build solid buildings of brick or stone. But in rural areas the population is far more fluctuating; villages become deserted, schools have to be closed and re-opened at new centres: and this is an additional reason for urging the adoption of primary school buildings of the type set forth in the plan (placed on the table). Such a building, with annual repairs to its roof and annual renewals of its cow-dung floor covering and annual plastering of its half-mud walls, should last for at least 30 years, which is looking sufficiently far ahead in the case of village schools. And if at the end of that time the village still remains and the school-going population is sufficient to justify a continuance of the school, it can be rebuilt for the same infinitesimal cost.

5. The building of such schools is of course without prejudice to the desirability of holding classes in the open under the shade of a big tree when weather conditions are favourable.

ANNEXURE V.

Furniture and Equipment.

Rooms for Nursery and Infants Classes.—Expensive and elaborate equipment is not necessary. Simple well-designed toys will do much to stimulate a child's imagination and some educationists consider that scientifically designed play-material covering the progressive stages from 2 to 7 is essential. Where this is provided, special storage will be required.

The following articles may be found useful in equipping a Kindergarten room:—Swing, Climbing Rope, Rings, Slide, Balancing Board. Blackboards should either extend continuously along three sides of the room or should be in frames 4 to 6 feet long, fixed low on the wall so that children can draw on them easily. As furniture in these rooms should be easily movable, nesting tables and chairs are recommended. Chairs should be so designed as to ensure good posture: a number of different sizes should be available.

Science laboratories.—There should be three suspension beams running the full length of the laboratory for demonstration purposes. These should be 3 inches wide, 9 inches deep below the ceiling and firm enough to support the head of a ladder. Ordinary plaster walls are not suitable for laboratories. Walls should be surfaced with some form of internal facing bricks or with plastic paint over a skim coat of plaster. For the lower 4½ ft. of the wall, wherever possible, erosion-proof panels should be provided. Ceilings should be painted to avoid absorption of moisture and gases.

Up to and including the normal High School stage there is no need for heavy or elaborate furniture. A Demonstration bench about 8 ft. by 2 ft. to 2½ ft., provided with a flap at one end to increase its length to 10 ft. and with a sink at the other end is recommended. Drawers and cupboards should be fitted on the teacher's side and the teacher's platform should be raised by 6 inches. A blackboard approximately 12 ft. by 4 ft. should be fixed to the wall behind the teacher's desk. Where a lantern or epidiascope is used, it should be projected from one end of the teacher's bench and part of the opposite wall should be left free and suitably treated for use as a screen.

The old type of bench is no longer regarded as necessary: ordinary firm tables with drawers and seasoned teak tops are quite adequate. Whether these should be double, i.e., broad enough for pupils to work on two sides or single is a question which will have to be settled in relation to the dimensions of the laboratory and the maximum number likely to use it at any time. The usual dimension of double benches are 5 ft long, 3½ ft. wide, 2½ ft. high. A wood and metal work bench should be provided for the repair of equipment. Two sinks, in addition to the one in the demonstration bench should also be provided. Gas and electric points at intervals are a great asset. Fume cupboards are only necessary when advanced work is done.

Practical Rooms—Middle and High Schools.—Practical instruction is being increasingly recognised as a desirable feature of the curriculums even in schools without any effective industrial bins. Schools of the modern type usually provide practical rooms or sheds where wood work, metal work, spinning, weaving, lino-cutting, needle-work, leather work and other crafts may be taught. Large schools may be able to afford a separate practical room for each craft, but in small schools each room will almost certainly be used for several purposes and must be equipped and furnished accordingly. Ample storage preferably in the form of a separate room is essential for every practical room and the dimensions of the store-room should be determined by the nature of the material to be stored, e.g., wood stores should be long enough to take the lengths of timber normally used. Store-rooms should also be easily accessible from the practical rooms. Cupboards, if provided in the practical room itself, should not be allowed to project too far from the walls or to encroach unduly on floor space.

If a water supply exists, one or two sinks should be provided in every practical room. Electric or gas points are also most useful but it is realised that in a great many cases the necessary supplies will not be available. One long fixed bench which may be combined with built-in cupboards should be placed under the main windows.

(a) *Wood work.*—The most convenient size for a wood work bench for 2 boys is about 5 feet by 2 ft. 6 inches. There should be clearance between benches of 3 ft. to 3 ft. 6 inches in each direction. In determining the height of benches regard should be had to the size of boy likely to use them; 27" for boys between 11 and 14, and 30" for boys over 14, may be taken as rough guides, except in those areas where the average stature varies considerably from the normal. An additional bench along one side of the room will also be useful. The floor of the wood work room should be non-resonant and of a material which will not blunt tools if they are dropped on it. There should be plenty of blank wall-space and sufficient wall blackboards. A small first aid cupboard is desirable.

(b) *Metal Work.*—Equipment for light metal work may be provided, at a moderate cost. Most of the work can be done with vices and benches round the room or down the centre but a solid floor must be provided for forges, muffles etc. Additional equipment in the shape of lathes or drilling and grinding machines will be needed for the senior classes in Technical High Schools. An adequate course in Wood and Metal Work can be provided in Middle and High Schools without the use of any power-driven machinery.

(c) *Spinning and Weaving*.—No special furnishing is required for spinning. For weaving, the furnishing will vary according to the size and pattern of the looms. The type of loom in which the leg space is dug out of the floor, is most suitable for the drier parts of the country. In placing the looms roughly the same clearances will be needed as in the case of wood work benches.

(d) *Art rooms*.—The walls and ceilings should be treated, in light, neutral tints in order not to confuse colour judgment. Free wall space is valuable for hanging children's work and exhibiting collections of drawings and paintings.

Furnishing may be of two main types, either in Western or in the traditional Indian style. Furniture in either case, should be light and easily movable, so that grouping may be varied as required. In the Indian style, the child sits on the floor on a piece of matting or board and works at a desk with a flat top. An alternative arrangement is to furnish the Art room with chairs with sloping backs and light trestles. Tables with adjustable tops are, however, sometimes preferred, particularly where light crafts are done in the Art room. The following equipment is also recommended:—

1. One long bench with teak top under the high windows of one wall.
2. Cupboards under the bench for uncompleted work.
3. Two sinks not less than 2 ft. by 1 ft. 6 inches.
4. A small blackboard for demonstration.
5. Shelves for display of models and pinrails for drawings.

There should be a store, not less than 90 sq. ft. in area, preferably with a window at one end and fitted with a large sink and draining board and shelves of varying heights. In addition, there should be built-in cupboards along one wall preferably fitted with sliding doors.

(e) *Domestic Science—Cookery and Laundry*.—Floors should be of a material which allows them to be kept scrupulously clean with the minimum labour. Many suitable types of patent flooring material are on the market. Walls should be lined with tiles or with mosaic to a height of 2 ft. above the sinks, cookers and work tables, so that splashes can be readily cleaned off. The cooking and laundry equipment provided should be similar to that which the girls will be likely to use in their own houses. In places where water, gas and electric supplies are already or are likely to become available in the near future, there is much to be said for teaching the use of gas and electric stoves, irons, etc. In such cases the placing of the points needs careful consideration. Other equipment should be the sinks with draining boards, 3 ft. by 1 ft. by 10 inches, one floor sink in another part of the room and a refrigerator, wherever possible.

For laundry work in addition to an adequate provision of sinks,—there should be at least two ironing tables with flaps. Other tables of a movable type, at least 5 ft. 6 inches by 2 ft. 6 inches, with working spaces on either side may be provided. They should be fitted with drawers to take utensils. Stools of the nesting type are to be preferred. A blackboard of 6 ft. by 3 ft. in two parts hinged to form cupboard doors should also be provided.

Science Store and Dark Room.—Ample storage should be provided behind the teacher's demonstration bench. Cupboards 1 ft. deep should be planned under the blackboard with a cupboard at least 2 ft. 6 inches deep at one side, for storing bell-jars, bottles, etc. The store room, should run the full width of the Science room and should be directly accessible from it. One end may be partitioned off as a dark room so that the store room can still be available when the dark room is in use. These rooms should not have windows but should be entirely ventilated. Adequate shelves for materials and equipment must be provided and there should be a sink with hot and cold water in the dark room. In school where Botany and Biology are taught facilities for studying plant and animal life should be available. A greenhouse or Warthin cases for growing botanical specimens are essential and arrangements for housing live animals are desirable.

ANNEXURE VI.

Furniture and Equipment.

Hall.—Nesting chairs or wood folding chairs of varying sizes should be provided, so that the floor can be easily cleared for such purposes as physical training, rhythmic exercise, etc. The provision of a stage with a proscenium is recommended. Storage can be conveniently arranged under the stage. Sectional or removable platform are not recommended. The sections are not easy to store when not in use and such platforms are much less useful for dramatics.

Gymnasium.—The gymnasium floor is of great importance in view of the wear it receives. An open grained timber is to be preferred, as woods tend to set and become slippery. The placing both of fixed and movable equipment must be carefully considered in the planning and construction of a gymnasium. The main apparatus will consist of wall bars, beams, climbing ropes, and window ladders. This apparatus should be obtained from and fitted by a specialist. The strengthening of the walls and ceiling both to support apparatus and to resist the effect of constant vibration is of course a matter for the architect.

Libraries.—Book shelves should be at right angles to the longer walls and there should be a window to each of the alcoves so formed. Metal shelves are to be preferred to wooden ones but where metal is not available some hard wood impervious to weather and insects should be used. Two important considerations in planning a library are that the books should be as accessible as possible and that the lighting, natural or artificial, should be adequate.

Dining rooms.—The desirability of arranging for pupils to take a meal or meals at school has been generally accepted. Where a cooked meal is provided, the dining room and the kitchen will have to be on a more elaborate scale than where milk and light meals only are served from a buffet. The equipment of the kitchen will depend on the nature of the meals to be provided and local requirements.

The floor of the dining hall should be capable of being easily washed and cleaned. Wooden chairs with rubber tips to avoid noise may be provided for children to sit and if tables are provided, the top may be

of teak or of 'patent stone' or marble slabs wherever such materials are cheap. Where cooked meals in Indian style are served, table tops of patent stone or some metal are preferable as they are not susceptible to staining and are easily cleaned. Separate tables for not more than 10 children each should be provided. Suitable cupboard space should be provided for storing plates, cups and glasses.

Hostels.—With regard to the articles of furniture in the hostels, the following suggestions are made:—

Beds should be constructed in such a way (either of metal or wood) as to afford little scope for harbouring bugs and other vermin. For each bed there should be one small bed-side table, one chair & mirror fixed to the wall at a suitable height, a shelf for books and a deep cupboard built into the wall or an almirah.

The reading room and the common room may be furnished in the same way as those in the ordinary day schools. Kitchen and dining rooms may also be similarly furnished.

ANNEXURE VII.

SCHOOL PLANNING.

(The following suggestions are extracted from "The Design of Nursery and Elementary Schools, Architectural Press, London, S. W. 1, 1939")

Classrooms.—There are many opposing ideas about the planning and disposition of classrooms. At present ideas are in an experimental stage and many experiments are still on paper.

In describing the possible disposition of classrooms, arguments are given for and against each type, based on information collected from recently built schools. As a general principle, classrooms should be grouped together as a separate unit of the plan assembly hall, library, classrooms, science rooms, practical rooms, domestic science rooms, workshop—these are distinct departments and should be planned so that they can be appreciated as such. And for all types there are two warning signals: firstly, the ultimate objective is not merely to provide the maximum sunlight and air, but to give every child the maximum opportunity for health and interest in his work. Secondly, in the enthusiasm for "freer planning" it must be remembered that the most free plan is not necessarily the most attenuated, but rather the one which functions most easily and pleasantly, having coherence in all its parts.

A. Courtyard.

The grouping of classrooms round a courtyard became a habit as a result of confined sites allotted to schools in built-up areas. Though entirely unnecessary on generous sites, the habit still persists. Financial stringency is usually the first cause of this type.

Advantages.—Compactness of circulation. Economy.

Disadvantages.—Impossible for all classrooms (and practical rooms) to be given good orientation. Over-shadowing of rooms facing courtyard, particularly if building has two or more storey. Cumbersome effect, shut-in feeling. Difficulties of not quite sound separation. Inflexibility.

B. Single Series.

This is becoming the most common type for schools built on adequate sites. It is most successful when planned as a single floor with not more than eight classrooms. With more than eight class rooms the continuous corridor becomes tedious. When there is only one floor, supplementary lighting and cross ventilation can be provided by forming a continuous range of windows above the corridor roof level but when there are two or more storeys supplementary lighting to lower floors can only be provided by means of windows on both sides of the corridor, cross-ventilation by means of duct below floors of upper corridors. Wells between classrooms can be made sufficiently sound proof by planning cupboards part of the way up the wall and using insulation board as lining for the remainder. Most sound leakage is likely to be through open windows. A glass sound-shield, projecting about four feet between window of classrooms, will deflect a considerable amount of sound, and windows themselves, if made to open in the right direction, provide a certain amount of deflection. Low shrubs also help to absorb sound and at the same time form visual shields for outdoor teaching spaces.

Advantages.—Simplicity, easy circulation, economical construction.

Disadvantages.—Difficulties of overcoming sound leakage. Only one, full window-wall.

C. Separated Single Series.

This type is only suitable for single-storey buildings. It provides outdoor teaching spaces between classrooms. A variation is to have two classrooms sharing one outdoor teaching space.

D. Double Series.

Planning with central corridor is noticeable in some recent "model" schemes. It is only possible in single-storey buildings, the corridor roof being kept low in order to get light and ventilation in the upper parts of inner walls. Domestic service rooms, art and needle-work rooms are usually given the less sunny aspect. Corridors can be lighted and ventilated by the familiar dome method.

Advantage: Reduced length of corridor. Reduced cost of construction. Variety of outlook.

Disadvantages.—Increased width of corridor (to cope with greater congestion). Sense of confinement in corridor (in spite of increased width). Wrong orientation for some classrooms.

E. Separated Double Series.

This type covers the same length as type B, while providing the intermediate outdoor teaching spaces of type C. It works best when classrooms are orientated with window-walls facing east and west.

Advantages.—Sound separation. Sheltered and shielded outdoor teaching spaces. Adequate lighting and ventilation. Variety of outlook.

Disadvantages.—Reduced sunlight in half of classrooms. Occasional west sun in teachers' eyes. Expensive.

F. Parallel Series.

An arrangement which has been successfully used in several American Schools. It is particularly suitable where a large number of classrooms have to be planned on one floor. If the spaces between each series are wide enough, an attractively planted playlawn can be provided for every four or five classrooms. It is reasonable to make the main corridor a covered way, or, if attached to a covered play space, screened by windows on one side only.

Advantages.—Easy and pleasant circulation. Opportunity for planning covered way, cloakrooms and lavatories along side main corridor without taking away light and outlook. Good orientation and variety of outlook for all classrooms. Avoidance of monotony. Double window wall in end classrooms. Easy to add additional classrooms.

Disadvantages.—Difficulties of overcoming sound leakage. Only one full window wall in most classrooms. Additional lengths of corridor. Expensive.

G. Elbow Access, Square.

Its object is to get two parallel window-walls in each classroom. The planning becomes more feasible if minor corridors are widened out and used as locker rooms for each pair of classrooms.

Advantages.—Adequate light and ventilation on both sides of classrooms, whether planned on one or two floors. Extension of class outdoors in either direction. Classes undisturbed by circulation in corridor.

Disadvantages.—Sound leakage through windows likely to be exaggerated in small courts, particularly if two storeys high. Small courts difficult to keep attractive. Disturbance of main circulation by constant elbow bends. Extra lengths of corridor. Additional expense, including cleaning and upkeep.

H. Elbow Access, Diagonal.

Not so suitable for two-storey planning as type G. Another variation of this type is to have classrooms in the same formation but directly connected with main corridor the triangular space forming a bay for lockers. This cuts out the second window-wall but cases circulation considerably.

Advantages.—Same as type G plus good insulation between class rooms and between outdoor teaching spaces.

Disadvantages.—Even smaller courts than in type G, awkward in shape and difficult to keep attractive. Breaking up of main circulation, extra lengths of corridor, additional expenses.

APPENDIX III.

ITEM XIII OR THE AGENDA.

Report of the Uniform Braille Code Committee of the Central Advisory Board of Education, 1941.

At the sixth meeting held in Madras in January 1941, the Central Advisory Board of Education considered the question of the adoption of a Uniform Braille Code in the schools for the blind throughout India. The Board while recognising the desirability of this and it practicable felt that the question was one which required examination by experts. It accordingly asked the Educational Commissioner with the Government of India to appoint a small Committee to go into the question and prepare a report for the Board at its next meeting. In consultation with the Provincial Governments, the Educational Commissioner set up a Committee to consider the question of a Uniform Braille Code with the following members:—

1. John Sargent, Esqr., M.A., C.I.E., Educational Commissioner with the Government of India.—Chairman.
2. Col. A. M. Dick, Jiwani Hospital, New Delhi.
3. Lt.-Col. E. O. G. Kuwan, C.I.E., I.M.S., Professor of Ophthalmology, Medical College, Calcutta.
4. Mr. S. C. Roy, M.A., B.L., Lecturer, Calcutta University.
5. Mrs. Evelyn Roy, Hon. Recording Secretary, Lighthouse for the Blind, Calcutta.
6. Mr. A. K. Shah, Principal, Calcutta Blind School, Behala, Calcutta.
7. Rev. W. G. Speight, Principal and Manager, Schools for the Blind, Palamcottah.
8. Mr. R. M. Halder, M.Ed., Principal, Dadar School for the Blind, Bombay.
9. Mr. H. D. Chhatrapati, B.A. (late Principal, Victoria Memorial School for the Blind, Bombay), Ramchandra Mansion, Girgaum, Bombay.
10. Miss Georgina Bateman, Superintendent and Chief Teacher, Blind School, S. P. G. Mission, Ranchi.
11. Rao Saheb W. N. Wadegaonkar, Superintendent, Blind Boys' Institute, Nagpur.
12. Mr. P. M. Advani, M.A., B.Sc., Principal, School for the Blind, Karachi.
13. Mahamahopadhyaya Pandit Lachhmi Dhar, M.A., M.O.L., Shastri, St. Stephen's College, Delhi.
- Dr. D. M. Sen, M.A., Ph.D. (London), Secretary, Central Advisory Board of Education, was Secretary of the Committee.

This Committee met in New Delhi on the 17th and 18th November, 1941.

2. The Agenda and the other papers circulated with it to the members are set out in Annexures I and II respectively. In addition, Mr. P. M. Advani circulated his pamphlet, "A Uniform Braille Code for Indian Languages" to the members. A paper on the "Hindustani Uniform Braille" by Mr. Kalidas Bhattacharjee, Principal of the Lady Noyce School for the Deaf and Dumb, New Delhi, was placed on the table.

8. In opening the proceedings the Chairman welcomed the members to Delhi on behalf of the Chairman of the Central Advisory Board of Education. He referred briefly to the previous attempts to solve the problem referred to the Committee (*cf.*, Annexure II) and while paying tribute to the pioneering work of those who have been responsible for evolving the seven codes at present in use in India, was strongly of opinion that the absence of a uniform code prevents effective co-ordination among institutions for the training of the blind in India, isolates the Indian blind to a considerable extent from the literature available in other parts of the world and raises economic obstacles against increased production of Braille literature in Indian languages. He, therefore, expressed the hope that the Committee on this occasion would be able to reach an agreed solution even if it meant, as it was bound to do, mutual concessions by the protagonists of existing codes.

4. The Committee while fully conscious of the practical difficulties in the way considered it an essential pre-requisite to any comprehensive scheme for promoting the education and general welfare of the blind that there should be a Uniform Braille Code for all Indian languages, so that, as far as possible, each Braille sign should represent the same sound in all Indian languages. The printing of literature for the blind on a commercial scale would only be possible when such a code was in general use. The Committee also agreed to approach the problem, in the first instance, by laying down certain scientific principles on which the uniform code should be based rather than by discussing the claims of existing codes to be accepted as the uniform code. The Committee then proceeded on to discuss the essential principles on which a uniform code should be based.

It was generally accepted as desirable that throughout their education the blind should be segregated as little as possible and that consequently the methods employed in teaching them should approximate closely to those used in the case of the sighted. The uniform code, therefore, must conform to the general lines followed in teaching normal children to read and write.

The Committee further agreed that though the education of blind children in India should be primarily through their own languages, there would be definite advantages in maintaining a close relationship with the Standard English Braille which has been adopted by so many other countries that it can claim to be regarded as the international code. It was accordingly decided that the original arrangement of the Braille signs in seven lines should be maintained in the code to be framed for Indian languages. Indian students would thus be familiar with the standard Braille system and in the event of their learning English or one of the other languages for which this code is used, they would at any rate be helped by familiarity with the sequence of dots or cells.

The Committee next considered the arrangement of letters in the proposed code. They felt that the determining factor should again be that of a scientific approach. The alphabet system of most of the Indian languages, unlike European languages, is based on phonetic principles and letters are grouped according to the phonetic affinity of the sounds they represent. Since the phonetic order has definite advantages compared with the non-phonetic, the traditional arrangement of alphabets ought to be retained so far as possible. The Committee recognised that this would mean generally the separation of vowels and consonants but

felt that it was essential to maintain as far as possible the scientific grouping of alphabets in Indian languages while adapting them to the Braille arrangement. Careful consideration was given to the argument that it would not be easy to meet the divergent needs of some of the languages in India within the rigid frame of the seven line arrangement while maintaining conformity with phonetic principles, but since certain modifications in the interest of securing uniformity had been accepted as inevitable the Committee came to the conclusion that some re-adjustment in the traditional arrangements of alphabets of some languages would be necessary if this particular difficulty were to be overcome.

Proceeding upon their decision that the Uniform Braille Code applicable to all Indian languages should have as its basis the Standard English Braille, the Committee next decided that the first line consisting of ten signs of the Braille should be assigned to the ten vowels common to Indian languages and the next two and a half lines to the accepted grouping of consonants, and the remaining 28 signs to special letters, i.e., vowels and consonants, peculiar to one or more languages which cannot be accommodated elsewhere. In this connection the Committee realised the special difficulty which may arise in the case of languages of Perso-Arabic group, such as Urdu, Sindhi, and other related languages, but it was agreed that a solution could be found by some rearrangement of the letters of alphabets of these languages with due regard to phonetic considerations.

It was further decided that the phonetic relations between the letters of the alphabets should be represented as far as possible, within the decisions already reached, by some simple relation between the signs allotted to them.

It was also agreed that in order to economise the use of signs, a two-cell arrangement should as far as possible be avoided, and that sounds from different languages should be accommodated by assigning the same signs to different but related sounds.

Having thus defined the fundamental principles on which the Uniform Braille Code should in their opinion be based, the Committee proceeded to consider whether any of the codes in current use would satisfy the conditions prescribed for an all-India Code. Opinion was general that none of the current codes fulfilled the Committee's requirements for a common code for all the languages of India but that it would be practicable to invent a new code, based upon the accepted principles which would satisfy all the reasonable needs of Indian languages.

5. The Committee felt that the possibility or the desirability of incorporating contractions and abbreviations in an all-India Code was a question which could appropriately be considered during the actual working out of an all-India Code.

6. The Committee next considered what machinery should be set up to prepare the code which they had in mind. They realised that in a matter of this kind any code formulated must be subject to revision during the initial stages in the light of experience gained from its actual use in different parts of the country. As the results of such experience must clearly receive expert scrutiny before any approach to finality can be achieved, the committee decided to recommend that a small Committee consisting of experts in the education of the blind, together with philologists with the requisite knowledge of Indian languages should be

appointed to work out a uniform code in the light of the principles already enunciated. It was considered desirable that any philologists, appointed on this expert Committee, should be familiar with the Braille signs.

The Committee was also of the opinion that it would help the proposed expert committee if members of the present committee would prepare independently a code based on the principles laid down and submit it for their consideration.

The Committee further expressed the hope that they would be given an opportunity to examine and comment on any code framed by the expert Committee whose appointments they have recommended.

Even after a Uniform Code has been formulated in accordance both with the principles and the methods which have been already outlined, the Committee felt that a Central Board of Reference would be required, to whom problems of general application could be submitted. Probably the expert committee entrusted with the framing of the Code would form a suitable nucleus for this purpose. The scope and personnel of such a body might alternatively be enlarged so that it could advise the Central Advisory Board on all questions affecting the education and training of blind persons.

7. The Committee next considered the steps which should be taken to ensure an adequate supply of suitable literature for institutions for the training of the blind in India. It was considered desirable that there should be a Central Press for embossing literature and a workshop for manufacturing special equipment for all the schools for the blind in India. Since, however, the Committee realised that owing to war conditions it may not be possible for the Government of India to undertake this liability in the near future, it was suggested that the possibility of utilizing one of the existing presses and workshops for the purpose should be explored. In addition to the central press and workshop there should also be a Central Library like those already existing in most western countries.

8. The Committee appreciated the fact that the adoption of a Uniform Braille Code by all the schools for the blind in India would throw a substantial financial liability on the managements of these schools, since they would be involved in the eventual replacement of their entire library of books embossed on old lines. With a view to enabling the authorities concerned to effect the necessary change within a reasonable period the Central as well as Provincial Governments, should, in the opinion of the Committee, afford such financial assistance as may be required.

In the absence of any All-India body authorised to deal with the education of the blind the Committee felt that there were a few matters in this connection to which they might usefully call attention, even though they did not come within their terms of reference. Accurate statistics with regard to blind persons are essential before a comprehensive scheme for their education can be prepared. The Committee regretted that it had not been found possible to include the enumeration of the blind in the Census, 1941.

It is recommended that the Board should call the attention of the Government of India to the desirability of taking a special census of blind persons in India as soon as possible. If this is not feasible statistics with regard to the sightless should be included in the next Census. It was desirable that a uniform definition of the word "blind" should be adopted for India as a whole.

The Committee urged that the Central and Provincial Governments should promote in the general interest of the blind legislation on the lines of the Blind Persons Act in Great Britain. The Committee recognised the difficulty of persuading the ignorant parents of blind children to send them to school where the necessary facilities exist and the need for propaganda in this connection.

The Committee were generally in favour of the establishment of an All-India Association for the welfare of the Blind, which would hold meetings at regular intervals, although it was realised that the financing of such an organisation would present serious difficulties, particularly under existing circumstances.

Finally the Committee wished to place on record their conviction that the subject they had had under consideration, like all other measures for ameliorating the condition of the blind, served only to emphasise the fundamental importance of the prevention of blindness in this country. Expert opinion holds that at least 50 per cent. of the blindness in India is preventible. While valuable work in this connection is being done by a few voluntary agencies it stands to reason that co-ordinated efforts on a large scale will be needed if the problem is to be effectively tickled. Money spent on prevention is obviously much more useful and remunerative than that spent on providing institutions for those whose sight might have been saved if precautions had been taken in time. The Committee hoped that it would be possible for the Central Advisory Board of Education to take up this matter in conjunction with Central Advisory Board of Health at an early date.

Main conclusions and recommendations.

I. That in order to promote the development of the education of the blind in a systematic and co-ordinated manner, it is essential to adopt a Uniform Braille Code for Indian languages as a whole, each Braille sign representing as far as possible the same sound in all Indian languages.

II. That the Uniform Code proposed should be based on the following fundamental principles:—

- (i) As far as practicable the blind should not be segregated from the sighted in the process of their education.
- (ii) The original arrangement of the Braille signs in seven lines as in the Standard English Braille should be maintained in the code to be framed for Indian languages.
- (iii) In the arrangement of alphabets in the code, the phonetic order of grouping in the Indian languages should, as far as practicable, be retained.
- (iv) Phonetic relations between the letters of the alphabets should be represented, as far as possible, within the decision already reached, by some simple relation between the signs assigned to them.
- (v) Two-cell arrangements should as far as possible be avoided and sounds from the different languages be accommodated by assigning the same signs to different but related sounds.

III. That none of the current codes can reasonably be accepted as satisfying the needs of a common code for all languages of India.

IV. That the question of incorporating contractions and abbreviations can only be taken up after the all-India Code has been formulated.

V. That the Central Advisory Board of Education should set up a small expert Committee, including linguists, who shall—

- (i) work out a Uniform Braille Code in accordance with the principles recommended in this report;
- (ii) serve as a Central Board of Reference to whom any specific issues that may arise during the transitional period may be submitted;
- (iii) form the members of an advisory body to the Central Advisory Board of Education on the education of the blind.

VI. To ensure adequate production of suitable literature for the blind, a Central Press with an up-to-date embossing plant and a workshop for manufacturing necessary educational apparatus should be established; and a Central Library to serve all the institutions in India should also be founded.

VII. That in order to enable the schools for the blind to adopt the new code and replace their existing stock of literature printed on old lines, the Central and the Provincial Governments should provide such financial assistance as the circumstances may demand.

VIII. That for the execution of any planned programme of education in the interest of the blind accurate statistics are essential and the enumeration of the blind population should be taken up by the Government of India as early as possible, and at any rate not later than the next census.

IX. That the Central and Provincial Governments should be urged to promote legislation for the special benefit of blind persons.

X. That the Central Advisory Boards of Education and Health should jointly consider the problem of the prevention of blindness in this country at an early date.

(Sd.) JOHN SARGENT, (*Chairman*).

“	A. M. DICK.
“	E. O'G. KIRWAN.
“	S. C. ROY.
“	EVELYN ROY.
“	A. K. SHAH.
“	W. G. SPEIGHT.
“	R. M. HALDER.
“	H. D. CHHATRAPATI.*
“	GEOGRINA BATEMAN.
“	W. N. WADEGAONKAR.
“	P. M. ADVANI.
“	LACHHEMIDHAR.

* Subject to note of dissent.

NOTE OF DISSENT BY MR. H. D. CHHATRAPATI.

While I am happy that friends who till now condemned Braille as unscientific and recast it have all accepted the seven line Braille and all its details, I regret I cannot accept the second principle,—to frame and to teach the Uniform Braille on the Sanskrit Orthographic lines. It is wrong in principle, narrow in its scope, so difficult to adjust, so deprived of its virtues, if any, by perpetual limitation and that every time repeated, as far as possible, scattered all over the field,—all over the vowels and consonants and all their detail, of pairs, groups, etc.—details so numerous to work, and so taxing for memory and brain of the poor blind, who must be between the ages of 6 and 8 at the best.

Again the fears, that unless the alphabet is taught on Sanskrit orthography the blind would be cut off from the seeing are nowhere seen. A single instance would have supported their theory. The 12 out of 16 schools here recorded, with their 80 per cent. of pupils, all taught orthographically challenge its correctness. And that experience covers 50 years.

Talking of the seeing nowhere are they taught on orthographic lines. Why then have it for the blind? For the last 50 years are the blind out of schools mix with the seeing, work as teachers even in High Schools. They teach music to men, women and children in their public classes and even in homes. They travel alone on tram, bus, rail. This experience of India's Blind Schools has never been challenged.

A uniform Braille code to be ideal should (1) be fully Braille, (2) the easiest to read and write, (3) by the largest number of the world's blind, and should last for ages. And if that Braille again enjoys the additional advantage of being wider and more universal than the Uniform Braille we are forming it shall not be its demerit. Again, because such a code is not on Sanskrit orthographic lines, it shall not be less scientific. If an alphabet is wrong we can mend it, even end it. But to reject a thing on mere presumption that the next thing offered is better seems to be a dangerous doctrine. There is no room for hurry. Not that we are less eager for uniformity. But in matters academic, mere compromises need never end in compromising a correct attitude. In rejecting Dr. Nilkanthrai's Braille and others of that type, without proving that they are on wrong lines, that they have done positive injury, or have endangered the welfare of the blind in spreading among them, I fear we may be charged with robbing them of an alphabet with which they were making fair progress in life.

Here are two schools of thought. The so called scientific looks at everything through Sanskrit. The other school stands on the International platform and looks at the question of the blind and their alphabets from higher basis. With them languages are groups of sounds labelled to represent peoples. Thus worked Mrs. Shirreff, Dr. Nilkanthrai and others of their fold. Like countries in the west they too studied Braille, and adopted it as others had done. Their alphabet was Braille, i.e., it was a point alphabet on the basis of touch and readable by it. When sounds were once assigned to signs in France, country after country accepted the original and made its own arrangement for its extras. Mrs. Shirreff did the same for her Urdu and Hindi and Dr. Nilkanthrai the same, again, for his local Gujarati. And Dr. Nilkanthrai used Dr. Armitage's 14

sound signs. Throughout it was the Roman characters that interpreted the sounds and permitted the same Braille signs to represent similar sounds in all languages. But finding fault with the Braille arrangement, for want of a correct understanding of the line of Touch, those sighted friends had to devise a new plan. Their study induced them to look upon Sanskrit as ideal. They thus recast their Braille on Sanskrit ideal. With them, Sanskrit and Braille signs had got linked up. But as India was a vast country and as it had some 250 languages and some 50 alphabets, the pioneers who wished to have wider service had to go beyond the Sanskrit range. Those ever varying calls of various languages left the alphabet question always in ferment. What was thus an entirely erroneous idea, because based on sight, was a very learned and honest attempt at giving India an Ideal Braille. Thus, ill-conceived though it was, evolved the Oriental Braille. Mr. Shah being blind first saw how wrong it was. But he had like Dr. Nilkanthrai to work alone. The work of such learned scholars, backed by Government as novel experiment in fields untapped, naturally received its warmest welcome in Mysore, Ratanchintala, Bombay and Calcutta. But at Calcutta the blind Mr. Shah had to alter it much. Similarly after some years of serious trial Mysore too gave it up and adopted Dr. Nilkanthrai's Indian Braille. By 1917 the Bombay Government evinced its sympathy for the English Braille. In 1920 Mr. Advani and friends revised the Oriental and Calcutta Brailles and developed a Uniform Braille, wherein he had fully utilized the experiences of workers. But he had sight. Again his predilections for Sanskrit were great. Thus though he went a great way with Braille, he could not understand his tactful experiences, and he could not be weaned of his Sanskrit disposition. Thus the Scientific schools threw not, the others spread. Why?

Where two opposing schools of thought take their stand on science, there is the time for learned men in the land to understand the situation. It has been rightly said somewhere that "All war is Civil War, for all Humanity is one. Wherever we find Civil War we want a higher synthesis which shall include the opposed unities in a larger Federal unityThe only way to reconcile differences is to include them. This is...Freedom." How correct

In 1928 met all schools and friends of the Deaf and Blind at a public Conference where Mr. Advani and Mr. Shah and all friends of the blind were present. With Mr. Advani's paper—this alphabet question—was discussed threadbare. After full three days study, the resolution was drafted by friends of the Oriental Braille who led. It said. "That in the preparation of all codes for the different languages of India, it is desirable that the same signs represent similar sounds which they represent in English Braille as far as possible". And that resolution was confirmed at another similar Conference of the All India workers for the Deaf and Blind, in 1928, where they reaffirmed it.

Or turn we to the early pioneers—Mrs. Shirreff and Dr. Nilkanthrai. And unknown to each other each produced an alphabet which is so popular. Both were great students. Both understood Touch, and Dr. Nilkanthrai was blind. They both condemned the Oriental Braille quite at the start. They equally condemned the linking of Braille signs to Sanskrit or any Indian Orthography as it would make it universally Indian at the best, while with no greater effort, but rather with greater ease it was possible to devise an Indian Braille which would not only serve all India

languages again demand other and new modifications. With compromises all over the field, and the ever ready breaks of, as far as possible, unspareingly provided to avoid every danger, I do not know if we prepare a base that may be orthographically Sanskrit, to be really scientific as our friends have conceived. One thing seems certain that neither the seeing nor the blind child who has already acquired any idea of his own alphabet will find in it an order which he ordinarily expects in his orthography-Sanskrit, Semitic, Dravidian. Under so many compromises, compelling brains, from every quarter, I fear we will evolve something novel, which may or may not satisfy. Put on the top of that hangs the tax on memory and brain which all these dot signs carrying their own meaning-full affinities. Again changing their connections to link them with new friends, they mean a load on kiddies of 6-5 which may prove too terrible to contemplate. Either these things are to be taught in school's or not, is what experiences will decide. If they are not to be taught, these troubles are needless. If they are to be taught the load seems too heavy for the blind child's brain.

And here is the plan for any one who cares to have a Braille of his own. It is worth a look. Simply take Dr. Nilkanthrai's Indian Braille Chart. Read only the last paragraph, at the bottom, on the right. You need nothing more. As very few seem to have seen it and is tempted to copy it.

"Would you have your Braille for your part? Then, from Table II pick up all sounds and signs which you need and which seem similar to your own, and which are expressed there in the ordinary order and in Indian sounds and Roman characters. Then write Table I which has the same sounds and signs, all arranged with corresponding Braille signs in the English make your own Braille. And it will be your own Braille and Dr. Nilkanthrai's Indian Braille, and the universally accepted Standard English Braille at the same time... And should you have a dissimilar or extra sound or sounds unprovided for in the two tables, the Indian Braille gives you complete liberty to utilise its remaining signs as you choose". If with the Chart, from out of the 32 papers written on this subject by the writer, the aspirant for the new alphabet simply takes the trouble to carefully read only two,—I An undivided Uniform Braille for India, and II Internationalism in India's Braille alphabets or The Triumph of Touch.—I feel certain he will see his way straight to Internationalism, and stop not there but point it to every blind man that needs it and to every sighted man that has a soft heart for the blind, that he too may render life for an afflicted brother as useful and happy as Providence has provided for him.

ANNEXURE I.

AGENDA FOR THE UNIFORM BRAILLE CODE COMMITTEE OF THE CENTRAL ADVISORY BOARD OF EDUCATION IN INDIA.

1. To consider whether a Uniform Braille Code should be adopted for Indian languages as a whole and if so
 - (a) what should be the fundamental principles on which such a Code should be based,
 - (b) whether any of the current codes fulfils all the conditions requisite for an All-India Code and

(c) if none of the Codes is considered adequate for the purpose in view, whether it is practicable to invent one which will satisfy all reasonable requirements;

2. To consider whether it is possible or desirable to incorporate contractions and abbreviations in the Code to be adopted.

3. To consider whether the Central Advisory Board of Education should set up a Board that will be authorised to work out a Uniform Braille Code in accordance with the principles recommended by the Committee and to modify the system subsequently, if necessary, in the light of practical experience.

4. To consider what steps should be taken to ensure an adequate supply of suitable literature and equipment for institutions for the training of the blind in India.

5. To consider any other matter that may be raised at the meeting.

ANNEXURE II.

MEMORANDUM PLACED BEFORE THE SIXTH MEETING OF THE CENTRAL ADVISORY BOARD OF EDUCATION.

Uniform Braille Code for the schools for the blind in India.

When the question of the education of defectives was considered by the late Central Advisory Board of Education at its fourth meeting held in January 1922, the following recommendations with regard to the establishment of a uniform Braille System in India were made:—

(i) That a committee should immediately be appointed by the Central Government to go into the subject of the possibility of a Uniform Braille for all Indian or all Indo-Aryan languages and frame such a uniform system.

(ii) That at least one up-to-date embossing plant should be established somewhere in India to emboss literature for the blind; also a depot and workshop, where apparatus for the education of the blind could be produced and made available.

The Government of India, while in full sympathy with the proposal, were unable to accept the recommendations on account of the financial stringency prevailing at that time. In view of the non-acceptance of the proposal by the Government of India, the then Educational Commissioner suggested as an alternative that the Board itself might tackle the problem with the help of one or two deputed experts, but the Board at its fifth meeting held in May 1922 came to the conclusion that no action was possible at that time. Further consideration of the question was deferred as the Board was abolished in 1923 as a measure of economy.

2. In 1932, the National Institute for the Blind, England, also raised the question of setting up a Braille Printing Press in India and referred to the variety of Braille Codes followed in India. In this connection the Insti-

tute suggested the formation of an Advisory Committee on the lines of the Advisory Committee on the Welfare of the Blind in England. As the majority of the Provincial Governments, to whom this matter was referred, were not in favour of the proposal, it was dropped.

3. In 1934, the Government of Bombay forwarded a proposal regarding the adoption of Dr. Nilkanthrai's Indian Braille in all schools for the blind in India. A copy of this proposal is given in Annexure II(a) to this memorandum. This proposal was forwarded to Provincial Governments for information and they were told that the Central Advisory Board of Education, when constituted, would be consulted in the matter.

4. At the first meeting of the re-constituted Central Advisory Board of Education held in December 1935, the proposal of the Government of Bombay mentioned in paragraph 3 above was placed before the Board, but it was not considered owing to lack of time. The general question of the education of the blind, deaf and dumb children was again referred to the Board at its second meeting held in December 1936. The inadequacy of the provision of educational facilities for defective children was recognised and it was recommended that the education of these unfortunates should not be neglected. At the third meeting of the Board held in January 1938, it was pointed out on the strength of the reports received from the Provincial Governments that the general attitude of the provinces was that whatever funds became available should be spent in extending education among normal children and that these should have the prior claim. Accordingly, the Board decided that no further action could then be taken in the matter.

5. The National Institute for the Blind again raised this question in 1936 and suggested that if some of the teachers of the principal blind schools in India could meet and confer, it might be possible for some measure of agreement to be reached in the matter.

6. If the education of blind children is to be undertaken on the right lines and with due regard to economy, it is desirable that a unified Braille Code should be evolved for adoption in all the blind schools throughout India. At present, the position is extremely anomalous. In order to satisfy local needs, different adaptations based on the Standard English Braille system are used as Braille Codes for reading and writing the Indian languages. The following are some of the codes in vogue:—

- (1) "Urdu Braille" commonly called "Shireef" Braille.
- (2) "Indian Braille" known as Dr. Nilkanthrai's system.
- (3) "Oriental Braille" adopted by Knowles and Garthwaite, commonly known as Marathi Braille in Bombay.
- (4) "Sindhi Braille" by P. M. Advani of Karachi.
- (5) "Shah Braille" by the late Lal Behari Shah, founder of the Calcutta School for the Blind.
- (6) "Tamil Braille Alphabet" by Miss Asquith, founder of the Palameottah School for the Blind.

Dr. Nilkanthrai's system appears to be the code most used in schools for the blind.

7. As Indian alphabets are more or less completely phonetic in their nature and the dialects derived from a common parent stock are, on the whole, very similar in their alphabets, it seems to be possible to standardise most of these for the purpose of a Uniform Indian Braille Code. If this were done, it would then be possible to have an up-to-date Braille Printing Press in India for printing books in Braille. So far, however, the problem does not seem to have received the consideration it merits and the attempts to solve it have been too sporadic to lead to any general solution.

8. The following extracts from the letter, dated July 1, 1940, addressed to the Director of Public Instruction, Bombay, by the Principal, Dadar School for the Blind, Bombay, indicate how important it is to secure uniformity in Braille Codes for educational use:—

"We firmly believe that standardisation of Indian Braille should be completed as early as possible in order to be able to further the cause of the blind..... We find it hazardous to change to any other code lest we should have to change over for the second time. We do not mind if we have to destroy only once our good collections of books in Marathi Braille.....
..... We are keenly interested in seeing that a Uniform Indian Braille Code should be standardised by a competent and impartial All-India Committee so that it may be acceptable to all the provinces in India. We are not biased for or against any particular code, devised by any particular individual. But we have kept ourselves open-minded to accept any particular code or combination of codes which may be decided upon as the Uniform Indian Code by a competent and impartial committee."

9. The question of the desirability of evolving a Uniform Braille Code for the schools for the blind in India is again placed before the Central Advisory Board of Education. If the problem is to be tackled at all it needs to be tackled in a sustained manner. Moreover since it is largely a technical matter it would appear to be necessary to refer it in the first instance to a small committee of experts as was suggested by the previous Central Advisory Board. This of course takes it for granted that a share in the responsibility for providing educational facilities for defective children, a burden which at present in India unlike many other countries is borne almost entirely by private individuals and voluntary associations, will ultimately be assumed by the public authorities concerned with the provision of education.

10. A statement showing the number of schools for the blind province-wise with enrolment is given in Annexure II (b) to this memorandum for the information of the Board. Also a copy of letter, dated the 9th July 1939, from Mr. H. D. Chhatrapati, late Principal, Victoria Memorial School for the Blind, Bombay, addressed to the Educational Inspector, Bombay, which has a direct bearing on the question before the Board, is enclosed as Annexure II (c).

ANNEXURE II (a).

PROPOSAL OF THE GOVERNMENT OF BOMBAY REGARDING THE ADOPTION OF DR. NILKANTHRAI'S INDIAN BRAILLE IN SCHOOLS FOR THE BLIND IN INDIA.

Letter from the Government of Bombay, No. 1411-II/F., dated the 8th May 1934.

I am directed by the Government of Bombay (Transferred Departments) to, refer to the correspondence ending with their letter from the General Department, No. 8661-B, dated the 31st May 1933, on the subject of the representations made by the National Institute for the Blind, London, regarding blindness in India. In Mr Hydari's letter No. F. 78/32-H., dated the 16th/23rd May 1932, the views of the local Government were asked for on the proposal for the adoption of a common Braille system and references to this question also occur in the memorandum by Mr. W. G. Speight which accompanied Mr. Hydari's letter. In reply, this Government suggested that the aspect of the problem which at the present stage could be considered as requiring all-India action was the production of literature and provision of libraries for the blind.

2. It seems to the local Government that to achieve the purpose above set forth the adoption of a common Braille Code will be of great importance, and they are accordingly forwarding for the consideration of the Government of India a letter on this question from the Principal of the Victoria Memorial School for the Blind, dated the 14th November 1933 with its accompaniments, together with a copy of a letter from the Director of Public Instruction, Bombay Presidency, No. S.67 (e)-216-A, dated the 17th April 1934.

3. I am to add that the local Government entirely agree with the Director that the problem raised in Mr. Chhatrapati's letter is of an all-India nature and that it can only be handled adequately by the Government of India.

Letter from W. Grieve, Esq., I.E.S., Officiating Director of Public Instruction, Bombay Presidency, to the Government of Bombay, No. S.-67 (e)-216-A., dated the 17th April 1934.

I have the honour to send herewith a copy of a letter, dated 14th November 1933 (together with the accompaniments to it) from the Principal, Victoria Memorial School for the Blind, Bombay, in which he advocates that Dr. Nilkanthrai's Indian Braille should be uniformly adopted for all the Blind schools in India. He says that of 29 institutions for the Blind 24 are in favour of Dr. Nilkanthrai's Braille Plan. In the Bombay Presidency 11 out of 18 institutions support it. He, therefore, requests that Dr. Nilkanthrai's Indian Braille may be sanctioned and adopted as the Departmental Braille for this Presidency and that it may also be recommended to the Government of India for its wider and All-India adoption as the Departmental Braille for the various provinces.

2. The problem of the education of defectives was investigated by a special Committee appointed by Government in 1917—*vide G.O., E.D.,*

No. 2518 of 13th October 1917. In paragraph 14 of their Report the Committee made the following observation:—

"In the Victoria Memorial School Dr. Nilkanthrai uses a system called the Indian Braille Alphabet. It is the English Braille alphabet as regards lines, signs and sound arrangement and it is claimed for it that with the modification of a few signs it also meets the needs of all Indian vernaculars. His articles on the question are printed in an Appendix. Which of the two systems is superior is a question for experts to decide."

It will be seen that Dr. Nilkanthrai's Indian Braille has already come under investigations by a special Committee which has left the matter for further expert examination.

3 Mr. Chhatrapati in his letter under reference says that Dr. Nilkanthrai's Indian Braille has already been brought to the notice of the National Institute for the Blind in London with a request to support its general adoption in India. In this connection a reference is invited to the letter, dated the 26th January 1932, from the National Institute for the Blind to the India Office and the note of Mr. W. G. Speight, Principal of the School for the Blind, Palamcottah, accompanying it, sent to me with Government, G.D., No. 8661-B.; dated the 13th/18th June 1932. It will be seen that Mr. Speight has expressed the opinion that he does not know that any single code has yet been tested in more than one or two languages and that whether or not it will ever be possible to secure universality it is impossible to say. He has made a suggestion that there should be one code for the Aryan and another for Dravidian languages.

4. The question raised by Mr. Chhatrapati is complicated and is one which requires expert investigation. It is also a problem of an all-India nature and I consider that it can only be handled adequately by the Government of India.

Letter from Mr. H. D. Chhatrapati, Principal, Victoria Memorial School for the Blind, Bombay, to the Director of Public Instruction, Poona, dated the 14th November 1933.

I have the honour to forward herewith for your kind perusal a copy of the letter I received from Mrs. Thomas, Superintendent of the American Mission School for the Blind, Dadar, Bombay, dated the 17th February 1933. It shows that she is quite willing to adopt Dr. Nilkanthrai's Indian Braille.

Years ago, Mrs. Shireff, the Author of Urdu and Hindi Braille whose alphabet is popular in Upper India, wrote to Dr. Nilkanthrai, pointing out to him how his alphabet was superior in several respects. Then as became a true Educationalist and sincere social worker, with the larger all-India interest of the Blind before her eyes, she wrote to all Christian workers in India about the merits of Dr. Nilkanthrai's Braille and recommended that it may be tested, tried and adopted for its many merits. She again put the alphabets before her friends in the West and requested the British and Foreign Blind Association, now the National Institute for the Blind, London, to consider its claims and to support its general adoption in India for its many merits.

Now, Mrs. Thomas, whose school is using the Oriental Braille for the last 32 years, comes forward and referring to Dr. Nilkanthrai's alphabet, writes to me "If Government will join us in recommending this system as the best, because of its adaptivity to many of the Vernaculars and its likeness to the English Braille, and if it will do all it can in urging upon other Schools to adopt this system, the unity of the situation will carry all the schools a long way".

And if I request you to kindly couple that with the resolution given below, which Miss Craddock and Miss Blenkarn of the Rukamabai Mission, Khedgaw, Poona, moved and supported at the Conference of the All-India Workers for the Blind and the Deaf, of 1928, the situation will be still further simplified.

Resolution.

"That in the preparation of the different codes of India it was desirable that the same signs represent similar sounds which they represent in English Braille, as far as possible."

At that Conference met all the schools for the Blind in India, excepting the one at Lahore. Again, but for one teacher, the Conference unanimously passed that resolution. That same was confirmed, again, five years, at another Conference of the All-India Workers for the Defectives, which met, again, in Bombay, in 1928.

As I survey the situation today, I feel that my ten years' labours are more than paid at this opportunity which God puts in my way of moving you, in such company, that you may not only award your sanction and adopt Dr. Nilkanthrai's Indian Braille as the Departmental Braille for this Presidency, but you may recommend it, again to the Government of India for its wider and All-India adoption as the Departmental Braille for the various provinces. In company of friends, foreign and local, I urge this point, as not only the Gujarati, Marathi, Hindi, Kanarese, Urdu and Sindhi languages so largely used in this Presidency, but even the Devanagari, Bengali, Oriya, Telugu and others have ten vowels and thirty-two consonants which are common to all, besides the *Anuswar*, punctuations and other languages signs found all over. All that may remain to do is perhaps to accommodate some peculiarities of some of the languages, and Braille's 63 signs give a wide berth for them. I feel sanguine that as Dr. Nilkanthrai's Indian Braille is the only alphabet that fully accords with the views expressed by the Bombay Government in their resolution of 1917, and as it is backed by 11 out of 18 institutions for the Blind of the Presidency, Government will grant this joint request and adopt it as their Departmental Braille for this Presidency.

I urge again that Dr. Nilkanthrai's Indian Braille is the only alphabet that has so closely and yet so successfully adopted the English Braille, now so universally adopted as the International Braille for all the English-speaking Blind.

And that Alphabet is actually favoured and accepted by 15 institutions. Again its systematic arrangement to secure for itself worldwide unity is regularly upheld in daily practice by 9 institutions, 7 of Upper India which follow Mrs. Shirreff's Urdu and Hindi Braille and 2 of the south which follow Mr. Speight's Palameottah Braille. We have thus in all 24 out of India's 29 institutions for the Blind, all arranged in favour of Dr. Nilkanthrai's Braille Plan. Believing that such a strong position will be better

backed by extracts from the letters of Mrs. Shirreff and of Mr. Speight I append the same for ready reference.

I thus feel sanguine that the popularity which Dr. Nilkanthrai's Indian Braille and its plan enjoy all over the country will induce the Government of Bombay to fully feel their way to again advance its claims before the Government of India for its general adoption of the one uniform undivided Braille for all India.

Demi-official letter from Mrs. G. Ross Thomas, Superintendent, American Marathi Mission School for the Blind, Bombay, to Mr. H. D. Chhatrapati, Victoria Memorial School for the Blind, Bombay, dated 17th February 1933.

In pursuance of our talk together some mornings back, let me state my position in regard first to the Braille. I am quite willing to adopt Dr. Nilkanthrai's system of Braille, working with you and others interested in the blind to find a way to solve what financial problems will arise from a change of books. I am willing to do this, if I can feel assured that in a few years, or even sooner, there will not come another move from some other angle urging the adoption of some other system, which might be taken up on such a large scale that we would again have to change. The way out of this seems to me to be to get the approval and backing of the Department of Education. If they would urge all schools using Braille for Marathi, to adopt this system (and I believe there are very few left who would need to change) we would all feel a much surer footing in discarding our old system. From the beginning we could all work towards the adoption of this system for those schools using other vernaculars to which this system is well adapted. Or better than this, we could ask Government to urge schools using Marathi, Gujarati and Hindi, to use this system. (Or a set of vernaculars which you might suggest, as you are more familiar with them.)

What we all in work with the blind in India need, is an embossing press for our books. With a unified system of Braille this would be much more possible and practicable.

Therefore, if Government will join us in recommending this system as the best, because of its adaptivity to so many of the vernaculars, and its likeness also to the English Braille, and if it will do all it can in urging other Schools to adopt this system, the unity of the situation will carry all the Schools a long way:

Then perhaps even before discarding our other Braille system books, we will be in a position to work hard and ask for help in getting an embossing press. This would then solve a lot of the difficulties of the new books which we would need, from the standpoint of time required in making them, and in their accuracy. Hand made books are not economical, for they are so shortlived. We must look for Government co-operation here. Certainly the blind should have facilities for books. With a unified system of Braille we should be able to do a great deal. Your system, arranged by Dr. Nilkanthrai seems to suit the demands, because of its adaptability to vernaculars and its likeness to the English.

1906. Extract from the letter of Mrs. Shirreff, author of the Hindi and Urdu Braille.—"I wish I had known of your arrangement sooner, for it is

particularly suited to the Sanskrit alphabet. It seems a pity that the same should not be used for Hindi. Your arrangement of Braille has interested me very much. It has I think three great advantages—its simplicity, the small number of signs allotted to the alphabet which leaves a larger number for contractions, the close resemblance to English. In these points, I think, it has some advantages over ours. It seems to me to be well adapted for use for Tamil, as that has not separate signs for hard and soft consonants, aspirates, etc. It is rather strange that an arrangement which is so simple and so like the English should be the work of Indian Scholars. I pointed out to the Blind Association (now the National Institute for the Blind, London), that your Code was well worthy of consideration for the three reasons I have given and also as being the work of highly educated Indian Scholars well qualified to judge of what is necessary and suitable. I also asked them to consider that it is spreading and likely to spread among Hindus. I have told the Reverend Mr. H. Pegg, Madras, of your Code, and suggested that as it is in use in Mysore, it might be the most suitable for use as a Uniform Code in South India".

1921—"It was most kind of you to interest yourself in the presentation of our Braille adaptation of Urdu to the Bombay Educational authorities.

I am still of the opinion that Messrs. Knowles "Oriental Braille" is not on good lines, so far as Braille is concerned and for Urdu it has no advantages, as regards alphabet arrangement whatever may be said for its following of Sanskrit alphabet. It has always seemed to me, that the arguments advanced in his pamphlet only go to prove that Sanskrit alphabet arrangement is scientific,—not that his Braille adaptation is. and that after all is the main point.

* * * * *

I think it would be well to point out that your Code would also be used for Urdu, and that there might be advantages in its nearer approximation to English Braille, as also in having one code for both classes of Indian Alphabets. I do know how far the use of our code has spread, but if there is uniformity the sooner it is established the better".

1930.—*Extract from the letter of Mr. W. G. Speight, regarding Tamil Braille, used at Palamcottah and to which Mr. Speight has added punctuations and composition signs.*—"Uniform type has been introduced in this institution because it has the following advantages:—

1. Since the alphabets are no longer taught by a repetition nothing is lost by the re-arrangement, but facility in learning is gained by the use of the seven-line system.
2. The system was possessed of a very good set of rules which could be adapted to meet the needs of any language without much difficulty.
3. By this usage it is possible to maintain world-wide uniformity.
4. It is equally adaptable to other Indian languages, or at any rate, to the Dravidian languages of the South.
5. It simplifies the study of foreign languages for any who wish to do so.

It will be noted that the adaptation follows the principle of equivalent sounds wherever possible, and in this connection it should be borne in mind that the same principle applies not only to English, but to all European languages. I am given to understand that this principle has also been applied in the case of Arabic and other languages in Africa."

DH. NUKASTHAR'S ISUAN BRAINL, THE MOST POPULAR OF THE BRAINL AIRPLANE'S OF INDIA AND OF THE BOMBAY PRESIDENCY.

This Presidency knows of only two Original Braille Alphabets.

2. Following the English Braille Plan, order
the Sanskrit characters and no more, and following the Sanskrit
order, as given by Pantry, etc.
(a) With a strong bias for uniformity and
pure Sanskrit complex.
(b) Loyal to the Sanskrit order but with
reform complex.

3. The Oriental Braille of Meau, Knowles and
Gathwaite,
1. Dr. Nilkanta's Indian Braille
(a) With strong bias for Uniformity and
Universality.

<i>(Original).</i>	<i>(Modification).</i>
1) That <u>Y</u> should be paid at _____.	1) That <u>Y</u> should be paid at _____.

1. The V. M. School for the Blind, Bombay.
2. The Happy Home for the Blind, Bombay.
3. The N. S. D. Industrial Home for the
Blind, Bombay.

It uses the Oriental Braille but anxiously strives for the establishment of the Gurmukhi Braille for All-India, on English lines.

Find its Resolution as adopted by the Bonnay Conference of 1912.

See also the Conference of 1913.

Report in part on English Braille arrangement, i.e., its 10 letter base, and its systematic development of the second, third, fourth and fifth lines from the first, besides its arrangement for numerals, punctuation and other language signs. Mr. Advenil's Uniform Braille thus moves half way toward the English Braille.

4. The School for the Blind, Poomani, 5. The School for the Blind, Beroda, 6. The School for the Blind, Mehegana, 7. The School for the Blind, Bhavengar, 8. The Brahmacharyashram, Jaungadh, 9. The Vandhyam Ashram, Manjal, Cutch.

Approved by
*100-3 and confirmed by the
Conference of 1975.*

Note - Schools No. 1 and No. 2 also thus transferred to column 4 and marked as Nos. 11 and 12.

10. The Blind Relief Association, Bombay.
11. New Friends.
11. The A. M. School for the Blind, Dadar, Bombay.

Agreeable in views.
12. The Kildaram Homo for Blind Women,
Khodgana.

It is a matter of great interest to us all that Dr. Nilkanthrai⁴ has recently announced his intention of adopting Dr. Niliann Braille⁵ as his method of teaching in all his schools in preference to their present Oriental Braille, though 11 institutions which actually go in for Dr. Nilkanthrai⁶ have again agreed in view of his Indian Braille.

Dr. Nilkanthni, 14 the only Institution not bracketed with institutions that join Dr. Nilkanthni, but Mr. Advani's nilkanthni, Realini has carried the School half way towards the English, and thus towards Dr. Nilkanthni's Indian Benilo, with which it further keeps in having the same 10 vowels and the same 32 consonants at least as common ground, as both the Sindh and Gujati are of "anustuti" rigi.

DR. NILKANTHRAI'S INDIAN BRAILLE, THE MOST POPULAR OF INDIA'S BRAILLE ALPHABETS, AND INDIA KNOWS OF THREE ORIGINAL BRAILLE ALPHABETS AND FOUR ADAPTATIONS AND MODIFICATIONS.

They all accept Braille's Six-point Cell and his Sixty-three Dot Combinations. All call their alphabets Braille, and Classified belong to two Schools of Thought.

II. Those that accept only the Braille signs, but accept not his plan and arrange their alphabet on the Sanskrit model, plan, etc., with a bias for Uniformity, but with no special bias for Universality or unity with the West, beyond the dot arrangement.

A. Original.

(a) With true Sanskrit complex.
3. Messrs. Knowles & Garvaito's Oriental Braille.
Used at
1. The School for the Blind at Ratnophintala.
2. The A. M. School for the Blind, Dadar, Bombay.
It lately accepted the Indian Brailio of Dr. Nilkanthrai.
3. Home for the Blind Women at Khedgarm.

Disatisfied with the Oriental Braille. They moved and supported the resolution for an undivided Uniform Braille on the Standard English Braille Base in 1923 which was confirmed again in 1928.

Note.—Dr. Nilkanthrai's Indian Braille alone seems to answer the requirements of their resolution. It is therefore just possible that they may adopt an alpha-phonetic system as agreeable.

Note.—Here are 7 institutions which accept only the Braille dot and his 63 dot signs, but are for the Sanskrit arrangement. Of these the A. M. School for the Blind, Dadar, has lately accepted Dr. Nilkanthrai's Indian Braille, and goes out of this list. Similarly the Home for the working institutions, as may enable schools to solve the problem of books. Of the rest Karachi regularly runs on the wider and more largely accepted English plan and has actually left the Oriental Braille. The Shah Braille has alike preferred to part company with the Oriental Braille though it has modified it only slightly. Two more schools reading Bengali join it and use the Shah Braille because it is the only Braille available for Bengal.

Patanohintala is thus the only school that uses the Oriental Braille, and if rightly understood it does so probably because it has soon no other alphabet.

B. Modifications.

(b) Loyal to the Sanskrit Order, etc., but with Reform Complex.
3. The Shah Braille.
Used at
1. Calcutta.
2. Patna; and
3. Dibrughat school for the Blind.

1. Karachi. Enamoured of the Sanskrit system, unable to resist the attraction of the English Braille, its beautifully arranged 10 letter lines, its systematic development of succeeding lines from the first, as also of its acceptance of numerals, punctuations, and other language signs as International. Mr. Advani's Uniform Braille moves quite half way towards the English Braille, and to that extent again near to Dr. Nilkanthrai's Indian Braille, which like Mr. Advani's Sindhi and other Indian languages deals with the same vowel and the same consonant signs and consonant sounds which mostly appear in the same or nearly the same form in languages and dialects, be they of Sanskrit, or Arabic source.

Letter to all local Governments (except Bombay) and all Administrations (except Aden and Andamans), No. F. 2-16/34-E., dated the 29th August 1934.

In continuation of this Department letter No. F. 78/32-H., dated the 5th July 1933, I am directed to forward, for information and such action as may be considered necessary, a copy of a letter No. 1411-II/F., dated the 8th May 1934, from the Government of Bombay, together with its enclosures. I am to add that the Government of India propose to consult the Central Advisory Board of Education in the matter, if and when it is constituted.

Letter to the Secretary to the Government of Bombay, Educational Department, No. F. 2-16/34-E., dated the 31st August 1934.

I am directed to refer to your letter No 1411-II/34-E., dated the 8th May, 1934, and to say that the Government of India propose to consult the Central Advisory Board of Education in the matter, if and when it is constituted. Pending the formation of the Board, however, they have forwarded a copy of your letter referred to above, together with its enclosures, to other local Governments and Administrations for information and such action as may be considered necessary.

ANNEXURE II (b).

Schools for the Blind, 1938-39.

Province.	Number.	Enrolment.
Madras	4	154
Bombay	2	101
Bengal	1	87
United Provinces	3	97
Punjab	2	83
Bihar	1	4
Central Provinces and Berar	1	41
Sind	1	48
Ajmer-Merwara	1	16
British India	16	631

N.B.—So far as information is available, there are no schools for the blind in other provinces, and the figures given in the table relate to recognised schools only.

ANNEXURE II (c).

LETTER FROM MR. H. D. CHHATRAPATI, LATE PRINCIPAL, VICTORIA MEMORIAL SCHOOL FOR THE BLIND, BOMBAY, TO THE EDUCATIONAL INSPECTOR, BOMBAY, DATED THE 9TH JANUARY 1939.

In connection with my interview with you on the 4th instant, I beg to invite your attention to the special need that now arises in this Presidency in particular for the Departmental recognition of Dr. Nilkanthrai's Indian Braille as the universal Braille for its schools for the Blind.

I press this claim as schools multiply, and every delay, however unwarily made is fraught with danger which swells with the ever increasing number of boys, learning the same language through more than one alphabet for one and the same language in each school.

I do so the more because this problem of the needless multiplicity of our Braille Alphabets troubles us the more as we have the largest number of schools, teach the largest number of languages, and claim pupils from all over the country, so far south as Comorin and so far north as Kashmere, North-West Frontier Province and Bengal, Bihar and even Assam in the east, as Rajputana in the Centre and all West and South as Baluchistan, Sindh, Cutch, and the Ghats on either side. And boys, when they go home and try to write to friends in local schools, find that though they too write Braille for their own tongue do it so differently. They have thus to teach their alphabet to others or to learn theirs. And they tell me that their friends find our alphabet so agreeable. And yet they are reluctant to adopt it because their school books are written on a different plan.

For this Presidency at any rate we have plain sailing. And I learn from the Commissioner of Education that the Advisory Board to whom the Bombay Government had sent my letters together with that of Mrs. Thomas' have all considered them, and the Advisory Board of Education have forwarded their recommendation to the Provincial Governments who are responsible for their education. And he has added that the Board has realised the necessity for the adequate provision of educational facilities for such children and recommended that the education of these unfortunates should not be neglected.

And for Bombay we have so many reasons to lead:—

1. It was my brother Dr. Nilkanthrai's Blindness that gave us Blind Education when he started his first School for the Blind, in our home at Ahmedabad.
2. That School led him to devise this Braille alphabet.
3. That Alphabet is the result of the patient study of five Bombay Educationists who have studied the various wants of the All-India Blind.
4. That Alphabet is accepted by all Schools of this Presidency.
5. The two Schools which do not use it to-day have joined me in moving Government to give their sanction without which it would be difficult for them to induce their people to throw away their present books and incur new expenditure on new books.
6. The Indian Braille Alphabet has met with the approval of the successive Directors of Public Instruction, and Educational

Inspectors of this Presidency at least. The Director of Public Instruction, Bombay, so early as 1917, issued a resolution supporting this Braille for all Blind Schools that taught Sindhi, Urdu and even the Dravidian Languages as they had practically the same letters to deal with and because the Indian Braille was so similar to the English Braille.

7. And Bombay had, in its two All-India Conferences of Workers for the Blind, in 1923 and again 1928, unanimously resolved that Common Sounds in all the Indian Languages shall be expressed by the same Common Braille signs as in English. And that, that first resolution was moved by Miss Craddock of the Khedgarm School, and supported by the vote of Miss Millard of the American Mission School, Dadar, who though both willing to accept and regularly use the alphabet, cannot do so for want of adequate provision of books in the new arrangement. And you have in your files the letters of the two schools showing how they are for the Departmental sanction.
8. And we have in all 17 out of India's some 29 institutions, which actually teach Dr. Nilkanthrai's Indian Braille, and 7 more whose alphabets differ only very slightly from it. And they represent all the languages except Sindhi and Bengali.
9. And the 17 schools teach Gujarati, Marathi, Hindi, Urdu and Sanskrit.
10. And the Indian Braille is applied to 21 of the leading languages of India, including Sindhi.
11. And we want our Alphabet, for our present Presidency wants for Gujarati, Marathi, Hindi, Urdu and Kanarese to which it already applied.

I have thus to request you to kindly consider, if we are going to seriously consider the question of the education of our Blind to decide if Government will not let Bombay again lead the country.

ANNEXURE II (d).

EXTRACT FROM THE PROCEEDINGS OF THE SIXTH MEETING OF THE CENTRAL ADVISORY BOARD OF EDUCATION HELD IN JANUARY 1941, RELATING TO THE QUESTION OF ADOPTING A UNIFORM BRAILLE CODE FOR THE SCHOOLS FOR THE BLIND IN INDIA.

* * * * *

15. *Item XV.*—The Board felt that the question of adopting a 'Uniform Braille Code' in the schools for the blind in India is a matter which calls for expert advice. It accordingly asked the Educational Commissioner with the Government of India to appoint a small committee of experts to go into the question and prepare a report for the Board at its next meeting.

* * * * *

"BH" and so on. The Shirreff Code, the Dr. Nilkanthrai Code, the Tamil Braille Alphabet, and the Mysore and Kannada Code come within this group. Though all these are more or less based on the Standard English Braille and are phonetic in their arrangements, they cannot take care adequately of the peculiarities of sound, the numerous letters in the alphabet, and the phonetic and grammatical relations of the alphabets of the Indian vernaculars.

Fundamental Requisites of Braille and its Adaptation.

A Uniform Braille Code for Indian vernaculars should satisfy among others, the following conditions—

- (1) "The Braille Signs must be arranged according to a definite plan, which makes it easy to remember them and also makes it possible to adapt it so as to represent the common characteristics of the Indian Vernaculars.
- (2) "The phonetic and *grammatical relations between the letters of the alphabets should be represented, *if possible, by some simple relation between the signs assigned to them.
- (3) "The alphabets of these languages should be taught as far as practicable in much the same order in which they are taught to students possessed of sight. At any rate there should be a definite grouping of the five *vargas* or classes of the consonants possible. This is particularly important, as in the case of most of the Indian languages, the alphabets are phonetically arranged
- (4) "Provision should be made in the system for incorporation within it of the peculiar needs of each language without disturbing that portion which is common to all."
- and (5) It may be added that the first principle of Braille "that the least number of dots should be reserved for the most frequently used letters" should be followed as far as possible.

Indianised Codes

The Indianised Codes namely the Chatterjee Code, the Knowles and Garthwaite Code, the Shah Code and the Advani Code satisfy the above conditions to a greater or lesser extent. Of these, the Shah and the Advani Codes follow the above principles more closely than the rest. Of these two, the Advani Code seems to be more suitable for adoption as a Uniform Code, provided Advani's arrangement of the first line follows Louis Braille's arrangement of the first line.

Advani's arrangement of the first line is as follows:—

ଅ a	ଆ ā	ଇ i	ୟ y	ଉ u	କ k	ଏ e	ବ v	ଓ o	ଔ au
..
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
A	E	O	D	F	G	B	H	I	J

* Dropped.

while Louis Braille's arrangement is as follows:—

A	B	C	D	E	F	G	H	I	J
..
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—

One must admit that Advani's arrangement of the first line is mathematical, and the symmetry intellectual. But this arrangement presupposes the teaching of 'how to read Braille' or better still how to read the first line or a part of it by memorising the dots. This process is rather out of date. Modern methods* advocate learning and reading the Braille characters, group or groups of characters by forms recognised by touch. Their symmetry should, therefore, be tactful.

I am, therefore, in favour of Louis Braille's arrangement of the first line for the following reasons:—

1. It has a definite tactful symmetry which is more easily recognised than any other arrangement by the blind reader. The symmetry referred to is shown below:—

A	B	C	D	E	F	G	H	I	J
..
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
-	|	—	—	\	/	□	L	/	L

2. If this arrangement is followed, it becomes easier than now for the blind child to learn the numerals in the order of the proposed arrangement of the Indian Vowels अ, आ, इ, ई, etc. standing for 1, 2, 3, 4, etc.

By this adherence to Braille's first line which I consider fundamental, the first line in the Indian Vernacular will be as follows:—

अ	आ	इ	ई	उ	ऊ	ए	ऐ	ओ	औ
..
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
a	ा	i	ଈ	u	ୁ	e	ଐ	o	ୌ

- "The Blind Child and His Reading" by Dr. Miss Kathryn E. Maxfield, M. A., Ph. D.—Published by the American Foundation for the Blind, 15 West 16th Street, New York.
- "Touch Reading by the Blind"—by Karl Burklen—Translated by Dr. Mrs. Frieda Kiefer Merry, Ph. D.—Published by the American Foundation for the Blind—Addressee as above.

If the principles and arrangements advocated by Mr. Advani are followed altering it to the extent of changing his first line to the first line of Louis Braille, the Code thus obtained will observe almost all the principles of touch-reading and still adhere to the rules of Indian Vernaculars mentioned previously.

ANNEXURE II (h).

A SUMMARY OF THE NOTE SUBMITTED BY MR. H. D. CHHATRAPATI, LATE PRINCIPAL, VICTORIA MEMORIAL SCHOOL FOR THE BLIND, BOMBAY, ON THE ADOPTION OF A UNIFORM BRAILLE CODE FOR THE SCHOOLS FOR THE BLIND IN INDIA.

All the Indian Braille alphabets number seven. They are:—

(1) Mrs. Shirreff's Urdu and Hindi Braille.	}	All original.
(2) Dr. Nilkanthrai's Indian Braille.		
(3) Messrs. Knowles and Garthwaite's Oriental Braille.		
(4) Mr. Shah's Calcutta Braille.	}	All modifications
(5) Mr. Advani's Uniform Braille.		
(6) The Mysore Braille, and		
(7) The Palamcottah Braille of Mr. Speight.		

2. Mrs. Shirreff's Urdu and Hindi Braille and Dr. Nilkanthrai's Indian Braille and its two modifications, the Mysore and Palamcottah Brailles, all like Braille's plan, order, arrangement and adopt the Braille base. They have similar signs for similar sounds as in the English Braille. They base their work on touch.

3. The Uniform Braille at Calcutta and the Advani Braille accept Braille's point, his cell and his 63 signs. They seem to have no regard for it beyond. They find its arrangement arbitrary and haphazard. They recast the Braille signs on their scientific Sanskrit model. That makes their work visual. That taxes touch.

4. Mrs. Shirreff's Urdu and Hindi Braille and the Oriental Braille are both Christian efforts. Supported by Missions, which started Blind Schools, they spread. Mrs. Shirreff's Braille in its present form, though based upon the English Braille, has been altered to suit the needs of Sanskrit languages. Thus their three long vowels and aspirates are altered. Here it suffered.

5. The second popular Braille was the Oriental. It went to Mysore, Ratanchintala, Calcutta, Bombay. It gave India an ideal Braille by assigning the smallest number of dots to letters of the most frequent occurrence. The authors believe it to be their labour and time saving arrangement, but it really confers no advantage. It causes the rubbing off of signs, and confusion and hesitance. Its second principle was to use two-cell signs. To the Blind, it seemed pedantry.

6. Mr. Shah of Calcutta, himself blind, desired to start a school for the Blind at Calcutta. His touch could neither tolerate his two cell signs nor his arrangement of classes. He altered all that. Their details were too tedious to study and yet the labours of the scholars were great, and will ever remain helpful to students. Mr. Shah brought touch into its limelight.

7. It was reserved for Mr. Advani to lead Blind Education more towards the English Braille than Mr. Shah could do. But he was too deeply in for Sanskrit symmetry and Science, and more than all for classes and the ordered arrangement of letters. But their too strong insistence for Sanskrit order, etc. led them to run on their own line of sight. The uniform Code thus became visual rather than tactful.

8. Thus turn we to the alphabets of the English fold. The Indian Braille of Dr. Nilkanthrai spread. From it developed the Gujarati, the Marathi, the Telugu, Kanarese, Tamil. Then came in Urdu. And it is shown to be capable of serving 21 leading languages in India and with Braille as the base to join it in unfurling the standard of an International Braille for all the languages of the world, through Lingua the Tongue—the soul of languages, irrespective of all its limitations.

ANNEXURE II (i).

A SHORT ANALYSIS OF THE PROPOSED UNIFORM BRAILLE BY K. BHATTACHARJEE, PRINCIPAL, LADY NOYCE SCHOOL FOR THE DEAF AND DUMB, NEW DELHI.

Uniformity in Braille Code at present used in various schools for different vernaculars in India is essential. Its absence has resulted in lack of co-ordination amongst the schools leading to a great disadvantage in the progress of education of the blind in this country as a whole.

In devising a Uniform Braille System for all vernaculars of India a few factors deserve careful consideration and scrutiny. They are as follows:—

(1) Re-arrangement of all the alphabet systems of the Indian vernaculars for a common basis.

According to the phonetic qualities and arrangements of the letters they may be grouped as (i) Indo-Aryan, (ii) Dravidian and (iii) Perso-Arabic. In fact, excepting the Perso-Arabic Group, the alphabet systems of the former two have closer affinity and based on purely phonetic principles. Since the phonetic order has a good deal of advantages over the non-phonetic, it is preferable that the alphabet systems of the Perso-Arabic group are suitably re-arranged to make a common alphabet plan required for a Uniform Braille Code for all the regional vernaculars of India. Such a common plan has been devised with 86 letters in its system and according to the need of respective vernaculars necessary letters may be used.

(2) A study of the existing Braille Codes for a basis of a Uniform Code.

So far as is known there are 8 Braille adaptations of which, excepting Mr. Chatterjee's adaptation which appears to be the first adaptation in India, remaining 7 are in vogue. These 8 codes may be divided into two groups according to their nature of adaptations.

- (a) Adaptation on Phonetic Order:—This consists of 5 codes of Messrs Chatterjee, Knowles and Garthwaite, Lal Behari Shah, the Telugu Braille and P. M. Advani.
- (b) Substitution on sound basis on the English Braille Order:—This consists of the 3 codes of Dr. Nilkanthrai, Mrs. Shirreff and the Tamil Braille.

Those three systems of the later group are, so to say, just a replica representation or a transliterated form of the English Braille and thus cannot be helpful to meet the needs of a common plan of alphabet system based on phonetic principle.

Out of the 5 adaptations of the former group, practically the 4 systems of Messrs. Chatterjee, Knowles and Garthwaite, Lal Behari Shah and the Telugu Braille, are based on the same principle; so they may be again divided into two groups:—

- (i) Special Adaptation on Phonetic Order:—This consists of the above four systems.
- (ii) The English Braille Plan adapted to Phonetic Order:—This represents Mr. P. M. Advani's System.

In Mr. Advani's System, changing the orthographic arrangement, letters have been allotted phonetically on the English Braille plan, but it would have been better if orthographic arrangement would have been retained as far as possible to facilitate learning Braille signs. The next chief point arises whether the English Braille arrangement would really be suitable to be adopted for the letters of the Indian vernaculars. Its distribution of dots in seven lines is well planned and since there is no phonetic relationship in the arrangements of the English letters, say addition of dot No. 5 to the signs for a, b, c to make k, l, m respectively it is quite sufficient to justify the formation of signs as such independent of letters either following or preceding, while in case of letters of the Indian alphabet systems a distinct relationship exists throughout and thus a kinship in the shape of Braille signs should also be maintained. The blind children in learning Braille depend more upon tactful perception of shape of Braille signs than on the symmetrical decrease or increase in the number of dots. If a closer analogy in the shape of Braille signs be thus maintained it would be more beneficial to the blind children. Mr. Advani's adaptation, therefore, does not seem to be helpful to solve this problem.

The four systems, viz., of Messrs. Chatterjee, Knowles and Garthwaite, Lal Behari Shah and the Telugu Braille are based on two most essential principles—Phonetic order of the letters and Braille facilities with distinct kinship and analogy in the shape of Braille signs, so they have been adopted as a basis for the Proposed Hindustani Uniform Braille.

A close study of the proposed Hindustani Braille plan shows how symmetrically Braille signs have been allotted for 86 letters arrived on

a compromise of all the letters of the Indian vernaculars. In it a distinct relationship in the shape of Braille signs has been maintained throughout to facilitate easy learning and constructing the signs. For example it may be seen that if one learns the Braille sign for 'k' and remembers a few simple points, one will be able to remember and construct easily 83: letters—25 of the five vargas, 2 additional nasals and 6 of the semi-vowel group. So should it not be considered a great advantage in relieving the blind children of the tiresome process in learning and embossing Braille signs?

In deciding the problem finally a few controversial points may arise which require due clarification. They are as follows:—

(1) Why not the original order of the alphabet system of the respective vernaculars be retained?

This affects mainly the vernacular—Urdu of the Perso-Arabic group. Urdu, so to speak, is not a separate language but a mixture of vocabularies of Persian, Arabic, Hindi and some other dialects of Northern India, keeping the Hindi grammatical form intact. It will generally be evidenced that the language used in the Northern and North Western part of India is almost one and may preferably be known as Hindustani. Thus it is seen that if any uniformity is required it is primarily for Hindi and Urdu.

It is an accepted fact that the Phonetic Order has greater advantage for which the International Phonetic Association is striving to phonetically rearrange the letters of the long established Roman Alphabet System, so there cannot be any reason why the alphabet systems of the Perso-Arabic group cannot be converted into phonetic order.

This noble effort for uniformity is mainly to disseminate knowledge amongst the blind children and it primarily concerns introduction and development of printing of Braille books. To achieve this end, avoiding duplication and bulkiness in books, it is very essential that the Urdu alphabet system be brought into phonetic order, simplifying the process of spelling.

(2) Should it not be worthwhile to adopt the English Braille signs for Indian vernaculars as it may be easier to learn such signs while learning English language?

Certainly not, since at the time of teaching Braille signs for vernaculars the easiest process should be adopted to teach the tender blind children, which should not be sacrificed only having a future objective in view to impart English education which a few only can avail of. The English Braille signs can be learnt easily later on when necessary.

In this connection it may be mentioned here that even the English missionaries, Knowles and Garthwaite, who were well conversant with the merits of the English Braille, in devising a suitable system for the Indian vernaculars, contrived the plan on phonetic order keeping in view the main feature—kinship in the shape of signs.

(3) Should not a particular Braille adaptation be adopted as a basis for Uniform Braille, which is at present used in majority of schools in India?

Certainly, if that particular Braille adaptation satisfies the needs to solve the problem on a scientific basis, otherwise not, since the same trouble will not be mitigated.

My main paper on the subject—"The Hindustani Uniform Braille" is just an humble attempt to solve the problem. To bring this stupendous work to a perfection linguists and educators of the blind should work conjointly. Above all the verdict should come from "the blind children after a fair study of the system.

Indianised Codes.

ANNEXURE II (j)

Statistics of Recognised 'Schools for the Blind', 1939-40.

Province.	Number of Schools.	Enrolment.
Madras	4	210
Bombay	3	122
Bengal	1	89
United Provinces	3	97*
Punjab	2	70
Bihar	2	73
Central Provinces and Berar	1	43
Assam . . . . .	..	..
North-West Frontier . . . . .	..	..
Sind	1	53
Orissa . . . . .	..	..
Ajmer-Merwara	1	16
Total	18	791

* Enrolment figures for the year 1939-40 have not yet been received from the Government of the United Provinces, hence the figures for 1938-39 have been given.

N.B.—The total population of the Blind according to the 1931 Census comes to 601,370, of which on the usual basis of 12 per cent. the school-going population is 72,164.

APPENDIX IV

Item XIV of the Agenda.

Report of the Joint Committee appointed by the Central Advisory Board of Health and the Central Advisory Board of Education to investigate and Report on the Dual Question of the Medical Inspection of School Children and of the Teaching of Hygiene in Schools.

CHAPTER I.**INTRODUCTION.**

The agenda for the third meeting of the Central Advisory Board of Health in July 1940 included the consideration of a memorandum from the Government of the Punjab on the teaching of hygiene in schools, two memoranda from the Governments of Madras and the Punjab on the medical inspection of school children and a combined memorandum on the two subjects by the Educational Commissioner with the Government of India.

The Board considered that, owing to the magnitude and importance of the questions, they required fuller consideration and in a resolution asked the Chairman to appoint a committee to report on the subject. The resolution of the Board is as follows:—

"The Board, having considered the memoranda submitted by the Governments of the Punjab and Madras and by the Educational Commissioner with the Government of India, on 'the teaching of hygiene in schools' and on 'medical inspection of children in schools', considers that the two subjects are closely related. Systematic attention to the health of children is an essential preliminary to any really remunerative system of instruction, whether it be on hygiene or other subjects in the curriculum. Where the physical condition of the child is unsatisfactory the money spent on educating him is largely wasted. The foregoing involves regular medical examination of school children, the treatment of illness and physical defects and the provision for under-nourished children of such food as may be necessary to raise them to an average physical standard. Teaching is not likely to be a success if the general school environment does not conform to reasonable hygienic standards. Information is necessary as to what extent these requirements are met in the different Provinces and how best existing defects may be remedied at the least possible cost."

The Board therefore recommends that the Chairman should appoint a special committee to report on the dual question of the teaching of hygiene in schools, primary as well as secondary, rural as well as urban and of the medical inspection of school children and their treatment and, in the primary stage, also their nutrition."

At their meeting in January 1941 the Central Advisory Board of Education were informed of the decision of the Central Advisory Board of Health, and they passed the following resolution:—

"The Board considered the memorandum submitted on behalf of the Central Advisory Board of Health as the outcome of the discussion at its third meeting held in Poona in July 1940. The Board noted with satisfaction that their Chairman, who is also the Chairman of the Central Advisory Board of Health, proposed to appoint a Joint Committee to consider the steps which might be taken to improve the physical condition of school children. The Board decided to leave to the Chairman the selection of the educationists to serve on the proposed Joint Committee."

As a result the Hon'ble Member for Education, Health and Lands, appointed the following Committee:—

1. Major-General Sir Gordon Jolly, K.C.I.E., K.H.P., I.M.S., Director-General, Indian Medical Service.
2. Lieut.-Colonel E. Cotter, I.M.S., Public Health Commissioner with the Government of India.
3. Major-General W. C. Paton, K.H.P., I.M.S., Surgeon-General with the Government of Bengal.
4. Rai Bahadur Dr. A. C. Banerjea, Director of Public Health, United Provinces.
5. Lieut.-Colonel C. M. Ganapathy, C.I.E., I.M.S., late Director of Public Health, Madras.
6. John Sargent, Esq., C.I.E., Educational Commissioner with the Government of India.
7. S. N. Moos, Esq., I.E.S., Director of Public Instruction, Bombay.
8. Dr. W. A. Jenkins, I.E.S., Special Officer in the office of the Director of Public Instruction, Bengal.
9. Pandit Lakshmi Kanta Maitra, M.L.A.

The Committee met in New Delhi on the 3rd and 4th November 1941 under the Chairmanship of the Director-General, Indian Medical Service. All were able to attend with the exception of Pandit Lakshmi Kanta Maitra who was unavoidably prevented from doing so.

Before starting their deliberations the Committee decided to co-opt Dr. Jean Orkney, W.M.S., Director, Maternity and Child Welfare Bureau, Indian Red Cross Society, as a member.

The terms of reference to the Committee were sufficiently wide to include the examination of all those factors which have a bearing on the health of the school child. As health is to be interpreted in a wider sense than that of freedom from disease, the main points for consideration appeared to the Committee to be (1) the medical inspection of school children, (2) the treatment of the defects discovered, (3) the improvement of the nutrition of the pupils, (4) the provision of a reasonable standard of environmental hygiene, (5) the teaching, theoretical and practical, of the principles of hygienic living, (6) physical education and (7) the development of healthy habits through the medium of corporate activities such as school camps and scout organisations.

In order to obtain information about the extent to which provision now exists in the Provinces and States for these activities, a questionnaire was sent by the Secretary of the Central Advisory Board of Health to Directors of Public Health asking that it should be completed in consultation with Administrative Medical Officers and Directors of Public Instruction. The information received in reply to the questionnaire was available for the members of the Committee before and during their discussions.

HISTORICAL.

As the movement to develop a school medical service in India has been largely influenced by the corresponding work done in England it will not be out of place to give a short account of the development of this service in that country. The foundations of the school health service in England were laid towards the end of the last century by a few local authorities to whom the high mortality rates during childhood had become a matter of concern and uneasiness. The schemes were at first local in nature and limited in scope. Impetus was given to the movement by the outbreak of the South African war. The medical examination of recruits disclosed a high incidence of defects, sufficiently serious to necessitate the rejection of a large number of men as unfit for active service. The publicity given to these findings quickened public consciousness to the necessity for improving the physical fitness of the nation's manhood.

A Royal Commission was appointed in Scotland to consider the question of physical training in schools. The Commission took a wide view of their duties and reported not only on the physical training and physique of the children but also on the unsuitability of many school buildings, the defective hygiene in schools and poor nourishment of the children.

The publication of this report greatly stirred the public mind and resulted in the appointment in England of an Inter-departmental Committee on Physical Deterioration which was soon followed by another Inter-departmental Committee on Medical Inspection and Feeding of Children attending Public Elementary Schools. The recommendations of the latter were published in 1905 and they formed the real starting point for the legislation directed since then towards the improvement of the health and life of the school child.

A big stride forward was taken in 1907 when the Education (Administrative Provision) Act was passed making a system of medical inspection of children in public elementary schools a statutory obligation on every local education authority. In this way a new branch of the national health service was brought into existence. That year also saw the appointment of Sir George Newman as Chief Medical Officer of the Board of Education. He lost no time in drawing up rules for the conduct of medical inspection and these rules were later issued as a memorandum. He also began the publication of reports which were the forerunners of the long series of admirable reports on the health of the school child published annually by the Board of Education. Sir George Newman undoubtedly gave to medical inspection its breadth of outlook and its conception of the essential unity of the home and school life of the child, and he laid the foundations which have given the school medical services in England the high position which they hold to-day.

The Education Act of 1921 went a step further and made it compulsory for all authorities to make adequate arrangements for the treatment of

children attending public elementary schools. It required the Education Committees of Counties and County Boroughs to extend the arrangements for medical inspection of boys and girls up to the age of 18 years attending municipal schools and gave powers to provide for their treatment.

The development of public health services in India has been of more recent origin and Provincial Governments have been largely concerned with the urgent problems of providing medical relief and of controlling the incidence of epidemic diseases which occur on a wide scale.

In the next paragraph a brief account is given of the development of the school medical service in Provinces and in certain States.

In the N.W.F. Province a scheme for the medical inspection of school boys in Peshawar City was started in 1927 and in the succeeding ten years was extended to five other towns. In 1937 the medical inspection of school girls began in Peshawar City and later was extended to certain rural areas. In 1941 owing to the large number of doctors joining up from the Province for service in the Army the scheme has been temporarily discontinued except for school girls in Peshawar City. In the Punjab the medical inspection of school children and the inspection of school premises started in 1915 and was at first confined to secondary schools. No arrangements were made for treatment. In 1925 a revised scheme was introduced in five districts, medical inspection and treatment being provided for primary schools and colleges within a radius of three miles from a hospital or dispensary. The inspection was carried out by the hospital staff and the inspection of buildings and premises by the local health officers. In this way the work was divided between the medical and public health departments of the Province. The dual control was found to work unsatisfactorily and the whole scheme was transferred to the Medical Department in 1938. In 1937, there was another change of policy. In the towns in which wholetime health officers were employed the work was handed over to them. In the rural areas it continued to be under the supervision of the Medical Department. All the schemes applied only to school boys; the medical inspection of school girls has been carried out since November 1932 in certain areas under the auspices of the Junior Red Cross. In Delhi Province the medical inspection of school boys and girls was started in 1927 with wholetime inspecting staff for the urban, and part-time staff for the rural areas. The part-time services of an oculist and a dentist for New Delhi and the Notified Area were secured in 1937. The scheme is still limited to a certain number of schools in the Province and includes 16 girls' schools in urban areas. In the United Provinces a scheme was started in 1919 with the part-time employment of private practitioners and dispensary doctors to do medical inspection. In 1926 the Education Department appointed ten wholetime school medical officers for ten of the larger towns. At the same time municipal and district health officers were being appointed in different areas under the Public Health Department so that in 1930 there were three separate agencies for school health work, namely (a) local school committees, (b) the Education Department and (c) the Public Health Department. In 1931 the control of the service was brought under the Public Health Department and at present wholetime school medical officers are employed in 13 large towns. The municipal health officers do the work in 21 smaller towns and in 27 still smaller towns the district health officer is the school medical officer. In Bihar medical inspection started in 1920 and a school medical officer with an assistant school medical

officer was appointed for each division in the Province. A woman-doctor was appointed for the whole province. At first the school medical officers were under the Inspectors of Schools, but in 1931 were brought under the control of the Public Health Department and this organisation exists up to now. Medical inspection is limited to high and middle schools in places where high schools already exist. *Orissa* follows the same lines as Bihar from which it was separated and has one school medical officer with an assistant medical officer and they work in high and middle schools. In rural areas the part-time services of dispensary doctors are utilised for the medical inspection of middle schools. A limited amount of medical inspection of school girls is done in three towns by women doctors. In *Bengal* a school hygiene branch of the Public Health Department was created in 1920 and inspections were carried out in municipalities where a health officer was employed. In 1928 a scheme for *Calcutta* came into force and three doctors were employed on a part-time basis with the voluntary services of an oculist and a dentist. In 1932, owing to retrenchment, the scheme was drastically reduced. In 1940 additional doctors were sanctioned and the school medical service was placed under the Director of Public Health. In *Bombay* a scheme was started in 1921 but was abandoned in 1922 as a measure of retrenchment. In 1938 the Government introduced physical education as a compulsory subject and required that satisfactory arrangements should be made to examine all pupils at the beginning of each year in order to determine their physical fitness. It is stated that in Government schools medical inspection is carried out by Government medical officers and secondary schools under non-official agencies make their own arrangements while local authorities have been asked to provide for medical inspection in primary schools through private practitioners or Government doctors. In *Madras* a scheme applicable only to recognised secondary schools was introduced in 1925 and was extended in 1928 to colleges and to elementary schools for boys in those areas in which compulsory education was in force. The scheme was suspended in 1932 owing to financial stringency and has not yet been revived and medical inspection is now confined to schools in the city of Madras and in the Poonamallee Health Unit. In *Hyderabad* medical inspection was started in 1935 in middle and high schools and was extended in 1937 to the primary sections of such schools. In *Baroda* medical inspection of school children in the city was started as far back as 1909 and has continued up-to-date on a limited scale. In 1925 medical inspection was extended to other places in the State with hospitals and dispensaries. In *Mysore* a scheme for medical inspection of school children was sanctioned in 1926 for Bangalore City. The scheme was confined to Government high and middle schools and was extended in 1927 to primary schools. In 1928 all the boys schools in the State were brought within the scope of the scheme wherever medical men were available to undertake the work. At present medical inspection is carried out in the two cities of Bangalore and Mysore, in the headquarter towns of five districts, in 80 per cent. of taluk headquarters and in a few villages.

From this brief summary of the development of school medical service in the different Provinces and States it will be seen that the area covered by the service varies widely as well as the types of schools in which medical inspection is done. Medical inspection in girls schools is limited. The schemes seem to cater more for middle and high schools than for primary schools.

The Committee wish to draw special attention to the frequency with which a system of medical inspection has been started in a Province, only to be abandoned after a short while as a measure of economy. There have also been a number of instances of change in policy which seem to indicate that there has not been a clear appreciation of the fundamental necessity for and the essential characteristics of a school medical scheme calculated to promote the health of the school child. The Committee emphasise that satisfactory arrangements for school medical inspection and treatment form an essential part of any efficient system of public education.

CHAPTER II.

AIMS AND OBJECTS OF A SCHOOL MEDICAL SERVICE.

In his annual report for 1926 Sir George Newman, Chief Medical Officer of the Board of Education, England and Wales, summarised the functions of a School Medical Service as follows:—

1. To fit the child to receive the education provided for it by the State. But this must also mean to adapt educational methods to the natural physiological capacity and powers of the child. This involves a study and understanding of the sphere and compass of a child's physiology.
2. To detect any departures from the normal physiological health and growth, any impairments, aberrations, defects, or disease (physical or mental), and advise the remedy or amelioration of them (at the school or otherwise) lest worse befall.
3. To seek the causes and conditions (external and internal to the body of the child) of such defect and disease, and, as far as may be, prevent them.
4. To teach and practise personal hygiene in every school, so that a habit of hygiene may be contracted by the children, and the way of physiological life may be followed by each coming generation.

Newman further stated that the purpose of a school health service is "to prepare the child for education and for citizenship". To carry out this purpose a system has been devised in England by which a specially appointed doctor visits each elementary school at least once a year and examines every child at least three times during his school career, namely, as early as possible after joining the school, at eight years of age and lastly at twelve. This medical officer also examines all children referred to him for special examinations during the intervals by teachers and parents. Provision has been made, on a wide scale, for the treatment of the defects discovered during medical examination. The essential unity of the child's life in his home and in the school has been recognised and the school health organisation seeks to remedy or ameliorate as far as possible, the

CHAPTER III.

MEDICAL INSPECTION.

The replies to the questionnaire show that the percentage of children with one or more defects discovered during medical inspection in 1910 varies from 20 per cent. in Jodhpur to 87 per cent. in Coorg. The conclusion which the Committee feel justified in drawing from the figures before them is that probably fifty per cent. of the children attending school would be found to require medical attention or medical observation.

AGE OF ADMISSION TO SCHOOL.

That the provision for the care of the child in the pre-school period is far from adequate was shown in the report of the Maternity and Child Welfare Committee presented to the Central Advisory Board of Health at its second meeting. Even in those areas where maternity and child welfare centres are functioning, it is rarely that children after the age of three receive any special attention and at this period of their lives they are easily liable to develop defects. For this reason it is important that the gap between maternity and child welfare work and the school medical service should be narrowed as much as possible. Where maternity and child welfare work does not exist, the need for bringing the children under an inspection scheme at the earliest possible age becomes even more urgent.

The Committee consider that too much weight cannot be given to health considerations in determining the age at which children should be admitted to school. The Committee are of the opinion that the age of school entry which will enable a child to come under medical inspection should be not more than six and preferably five.

NUMBER AND NATURE OF EXAMINATIONS.

Three types of medical inspection are required in a scheme, namely (1) the full routine medical inspection at specified ages, (2) the re-inspection of children found defective at such routine inspections and (3) the special inspections of children selected by the parent or the teacher for examination by the doctor in the intervals between the routine inspections. The extent of these special inspections will depend on the ability of the parents, and still more so of the teacher, to recognise those children who are failing to develop satisfactorily either physically, mentally or socially. The basis of medical inspection of school children in England is their routine examination as early as possible after joining the school, at eight years of age and again at twelve. In that country there has been considerable discussion as to the most desirable number of such routine examinations. Some cities argue that they are a waste of a doctor's time because they involve the examination of large numbers of children who are found quite normal in order to select a minority suffering from defects. The critics urge that the defects discovered are generally of such a nature that they can be detected by an observant parent or teacher and brought to the notice of the doctor. However even the most enthusiastic protagonists for reducing the frequency of school medical inspections in England seem to regard two examinations as the minimum; one at the beginning and one at the end of the school career. In India the frequency of routine examinations has varied considerably from as often as every three months to three times in the

school career. The Committee consider that many routine examinations now carried out in different parts of India are unnecessary and recommend that the routine examinations of a child should take place; (a) on entry into a primary school at approximately its 6th year, (b) at the 11th year and (c) the 14th year. For children in high schools when leaving at the age of 17 a final examination is desirable. Children who go from a private school where they have not been under a medical inspection scheme to a secondary school should be given a routine examination as soon as possible after admission.

The Committee realise that, with the routine inspections in a child's school career limited to three, responsibility is thrown on the parent and the teacher for bringing the defects in a child to the notice of the doctor in the period intervening between these examinations.

RATE AT WHICH ROUTINE EXAMINATIONS CAN BE CARRIED OUT.

The Committee had before them figures showing the number of routine examinations which are carried out in different parts of India in relation to the fulltime staff employed. These figures varied somewhat and the consensus of opinion of the Committee eventually was that 28 routine examinations a day is a suitable number for a wholetime doctor who is also responsible for treatment. Taking the number of working days per annum in schools at 175, twenty-eight inspections per day will give a total of approximately 5,000 inspections in the year to be performed by a wholetime doctor. Taking a population of primary school children of 25,000 spread over a period of five years between the ages of 6 and 11, there would each year be 5,000 entrants and 5,000 at 11 years of age for examination, making 10,000 routine examinations. In all probability a total of 10,000 re-examinations and special examinations would be required in the year for the 25,000 school population. Such examinations are likely to occupy about half the time of a corresponding number of routine examinations. The total time required for medical inspection in a scheme covering 25,000 school children would therefore correspond to that of 15,000 routine examinations. With one doctor for 5,000 examinations, three doctors are considered necessary for the school population. These calculations are however of a general nature and the number of doctors required will depend on local conditions, especially on the proportion of re-examinations and special examinations which will have to be done.

FREQUENCY OF A DOCTOR'S VISIT TO A SCHOOL.

A doctor should maintain touch with the staff and children in each school throughout the year and his return visits for special inspection should enable him to do this. It is desirable that routine inspections should be timed so as to cause a minimum of interference with the routine working of the classes.

MEDICAL RECORD.

A medical record will have to be maintained for each child. The schedules used in the various Provinces for recording the results of medical inspection were placed before the Committee. The Committee consider that it would be advisable to have a standard record and a suggested schedule for the purpose is given as an Annexure to this Report.

The Committee consider that it is most important for the guidance of the new head master in a secondary school that a child should bring

with him from the primary school on up-to-date medical record; similarly in the case of a child going from one school to another. It is understood that in the United Provinces the transfer certificate, which a child receives on leaving one school for another, is accompanied, where medical inspection exists, by the medical record of the child. The head master of the school which the child is leaving should be made responsible for transferring this record.

In the maintenance of records, to avoid the doctor's time being taken up with clerical work, the head master should cooperate in filling the cards and he would of course be responsible for their safe custody in the school.

The Committee consider that the height and weight figures recorded at the routine examinations are not likely to prove a valuable index to a child's progress and that they will be of much greater value if height and weight are taken at regular intervals of not less than twice a year and recorded preferably in the form of graphs. This work should be done by the teacher. Any child showing material variation from the normal progress should be brought to the notice of the doctor. In view of their recommendation that routine examinations should be limited to three, the Committee desire to stress the value and importance of the regular maintenance of these height and weight records.

QUALIFICATIONS OF INSPECTING STAFF.

Medical inspection should only be carried out by a qualified doctor and by this the Committee imply a registered practitioner of modern scientific medicine. He will require some special training, especially in eye refraction tests and in the detection of the early signs of malnutrition and also in ear, nose and throat conditions. In view of the increasing part which physical education is playing in the life of the school child, it is considered essential that he should be well acquainted with the physiological basis of modern physical education.

PLACE OF INSPECTION.

Medical inspection should be carried out on the school premises during school hours. It is very desirable that if possible a parent should be present at the time of inspection. The doctor should always go through the inspection results with the head teacher and if necessary with the class teacher also before he leaves the school. In those schools which have a physical instructor it is also desirable that he should as far as possible be available during the inspection. In this way the three persons who are intimately connected with the child, viz., the teacher, the parent and physical instructor will have the opportunity of hearing the doctor's view regarding the child and of obtaining any special instructions regarding the child's health.

Statement showing percentages of children found suffering from specific defects at medical examination during 1940.

Name of the Province or State.	Defective vision.	External eye conditions.	Enlarged tonsils and adenoids.	Dental caries and pyorrhoea.	Ear diseases and defects of hearing.	Enlarged spleen.	Skin diseases.	Malnutrition.
Bengal (Calcutta)	25.0	Not avail-able.	10.7	8.7	1.0	0.6	1.6	6.9
Delhi Province	0.0	17.0	10.9	11.9	1.2	1.1	3.1	18.8
Punjab (Boys)	10.0	Not avail-able.	20.0	Not avail-able.	Not avail-able.	2.4	Not avail-able.	0.9
N.W.F. Province*	0.9	7.0	0.9	1.1	0.6†	Nil.	0.3	Not avail-able.
Madras	Entrants { Boys Girls } 0.3 0.2	3.5§ 2.2§	13.0 17.3	8.6|| 3.4||	2.7 0.9	Not avail-able.	8.8	13.7
Regulars { Boys Girls } 0.6 0.3	3.7§ 3.2§	23.5 21.2	14.8|| 36.7||	2.4 1.4	Not avail-able.	0.6	0.8	0.8
Baroda city	5.3	4.3	18.9	33.8	23.9	18.0	11.0	11.0
Hyderabad (City)	0.6	Not avail-able.	11.2	15.0	5.1	0.7	1.8	16.1
Ajmer-Mewar	5.8	Not avail-able.	8.0	6.5	0.3	0.7	6.2	10.6
Baluchistan	No figures are given ; enlargement of tonsils, defective vision, trachoma and anaemia are said to be the principal defects.					1.0	1.0	4.1.
United Provinces	Urban { Urban Rural } 7.5 0.9	6.6 4.8	10.4 4.5	16.1	Not avail-able.	0.5	2.7	14.0
Bihar (Boys)	13.2	0.1	11.9	10.8	Not avail-able.	1.6	2.3	6.0
Orissa	7.3	6.4	10.7	4.2	Not avail-able.	Not avail-able.	Not avail-able.	13.8
				11.2	Not avail-able.	12.0	6.0‡	10.5

* The figures relate to Peshawar for the first quarter of the year July, 1939—June 1940.

† The figure includes diseases of the ear, nose and throat.

‡ Figures are for scabies only.

§ Eye diseases.

|| Only dental caries.

CHAPTER IV.

TREATMENT AND FOLLOW UP OF DEFECTS.

The Committee cannot emphasise too strongly that a scheme for medical inspection without provision for treatment and follow up is of little or no use.

The table facing this page shows the nature and incidence of the principal defects found at medical inspection in certain Provinces and States. While the divergencies in the figures suggest that the examinations have not been carried out on a uniform basis, the disabilities from which the school child mainly suffers appear to be enlarged tonsils and adenoids, dental caries and pyorrhoea, malnutrition and defective vision.

Since malnutrition affects a considerable percentage of children, schemes for treatment will have to include provision for supplementary nourishment for such children. Special arrangements will be necessary for the treatment of dental defects, for the enucleation of tonsils and adenoids and for the correction of the more serious defects of vision and hearing. Simple errors of refraction can be dealt with by the school doctor as can diseases of the nose and throat which do not require operation.

The table does not provide any complete picture of the extent to which children suffer from passing ailments of the eyes and skin or other short-lived departures from normal health. The season of maximum incidence of conjunctivitis, for instance, may or may not coincide with the routine inspection of the school children. The vast bulk of these temporary defects can be treated in the school. Many of them are of such a nature that they can and should be effectively treated by a careful parent with domestic remedies. At present, however, owing to the indifference and ignorance of many parents provision for treatment must be made by the school authorities in the interests of the child. The important thing is that the child should receive treatment; treatment which will not only cure the defect in the shortest time and with least interference with his school attendance, but will also aim at preventing recurrence.

Replies to the questionnaire show that not only is the provision for treatment inadequate in most areas but that the facilities available are unlikely to fulfil the requirements set out in the previous paragraph. Exceptions are the N. W. F. Province, United Provinces and Delhi where school clinics or dispensaries have been established. In the N. W. F. Province 89·8 per cent. of the 14,401 children found with defects were treated. In Bihar 59·9 per cent. of 7,080 children with defects are said to have received treatment at hospitals and dispensaries. Most provinces gave no figure from which the percentage of defective children who actually received treatment can be calculated.

Generally speaking the child in order to obtain treatment has to take his chance at the out-patient department of the general hospital or dispensary which is usually overcrowded and where his minor ailments seem a matter of small moment to the doctor overworked in dealing with serious illness. There is small chance that any attempt will be made to explain to the child or his parents the circumstances and agencies through which the defect arose and how they can be modified to prevent recurrence. There

may be no time even to do more than prescribe treatment to be carried out at home by unskilled and ignorant parents, a method which experience has shown does not give successful results.

The Committee are of opinion that the solution to the problem of providing the right kind of treatment in urban areas lies in the establishment of school clinics. The clinic should be conveniently placed to serve a number of schools. In many towns buildings suitable for the purpose already exist, for example maternity and child welfare centres, and in organising a scheme of treatment advantage should be taken of these. Similarly in the planning of new buildings for health activities the advisability of grouping welfare centres, school clinics, etc., should be borne in mind.

The Committee consider that, whenever his duties will permit the teacher should be present at the clinic with the children to see what is being done and to receive any instructions for treatment which is to be carried out in the school in order to relieve pressure on the school clinic. Failing the establishment of special school clinics staffed by the school health service, the next best plan will be to arrange a special session for school children daily at the local hospital or dispensary. This may have to be arranged in the afternoons when the doctor has got to attend other patients in the mornings.

Whatever may be the arrangements for providing treatment by a doctor for the child, a large amount of minor elementary treatment of children can and will have to be done at the school. Much of this work in other countries is done by the school nurse, but conditions in India at present make it essential that the duty to a large extent should fall on the teacher. It is recognised that the average primary school teacher cannot be regarded as the ideal person to carry out the daily treatment of a number of minor ailments. But until the necessary number of school nurses is available this is the obvious alternative. The teacher should be told by the school doctor the type of cases he may treat and what treatment should be given and he should be made to recognise the dangers of undertaking treatment beyond his scope. Given such training, a teacher who is interested and endowed with a fair degree of commonsense can do much for the health of his pupils. He will of course require the necessary dressings and drugs.

FOLLOW UP WORK.

It is important to keep in mind that treatment should be directed towards the care of the child as a whole and not merely of the particular defect discovered. The susceptibility of the child to disease is largely determined by his nutrition, his personal cleanliness and the hygienic condition of his environment.

The school itself where it is insanitary or overcrowded, or where the curriculum is not in conformity with the physiological capacity of the child, plays a large part in causing disease. In spite of this it remains true that a preponderant role is played by the home environment, and the campaign for the reduction and prevention of disease must therefore be carried into the home if any sound progress is to be achieved.

The most efficient agent for this purpose is the health-visitor who is already in touch with the parents through the maternity and child welfare services. She is in the best position to win the confidence of the mother and to make her receptive to new ideas. Traditional customs and habits,

particularly the observance of purdah, militate to a large extent against the attendance at medical inspection of the mother who is after all the chief determining factor in the home environment. Wherever a maternity and child welfare service exists every effort should be made to secure the interest and cooperation of the health visitors in following up the defective school children in their homes. However, as the number of health visitors is inadequate, any large scale employment of health visitors for the work though desirable is not practicable and therefore alternative methods of influencing the parents must be tried out.

Attention has already been directed to the value of having the parents present at medical inspection to hear firsthand the doctor's advice regarding the health of the child. In the absence of the parents the teacher is once more the agent on whom the onus will fall of trying to improve home conditions. At present very few teachers even in high schools have ever been inside the homes of the pupils. The lack of contact in every type of school between teachers and parents is a regrettable feature of school life in India which the Committee feel should be remedied as soon as possible. Teachers ought to realise that it is their duty to know the parents of their pupils and to become welcome friends in the homes of the children.

The Committee recognise that it is difficult to create any real interest in many teachers for the welfare of the children so long as their status, salaries and prospects remain at their present low levels. Even under existing circumstances a good deal can be done to secure increased assistance from teachers, but the desired end can only be achieved when the condition of service of all teachers are such as to command their allegiance and cooperation. As the teacher is the solution to so many of the problems of school health, the Committee urge the vital importance of removing the sources of discontent and of making the conditions of employment more attractive to the right type of man and woman.

CHAPTER V.

NUTRITION.

In the majority of the Provinces and States schemes for supplementing the nutrition of school children are stated to be in force, although their working in many cases is restricted to particular types of schools and to certain localities. Further evidence of the recognition by provincial authorities of the value of a midday meal for the school children is available from the fact that in certain Provinces, of the total budget allotment for the school health service a high proportion is for school meals. Examples are Madras city with a provision of Rs. 67,000 for supplementary food and an allotment of Rs. 12,000 for the school medical staff, and Bengal with a provision of Rs. 45,000 for food and Rs. 7,800 for medical inspection and treatment.

Certain details of the Bengal scheme were described to the Committee. The scheme has been in operation since 1934 by which a midday meal is given to the children of all aided high schools at a cost of four annas a month per child. This meal, although it is not substantial, is stated to have a marked effect in improving the working capacity of the children in the afternoons. In the initial stages the cost of the scheme was borne

on half and half basis by Government and the parents. The scheme is now more extensively adopted and the division of cost is as follows:—

Parents where they can afford to do so pay the whole 4 annas per month. The headmaster is allowed to give free tiffin to 10 per cent. of the poorest children and the cost of this 10 per cent. is defrayed from the Government grant.

The small amount of four annas per child per month fully covers the cost of the food and its preparation in the school.

The Central Advisory Board of Health in appointing this Committee drew particular attention to the problem of nutrition in primary school children. The replies from the Provinces and States show that the children of primary schools are not generally included in the schemes for midday meals. One reason for this is that the primary school population is much larger and that the financial problem of providing supplementary food for them is therefore more difficult. The Committee were informed that in Bengal there were five million primary school children and that the cost of giving them supplementary food would be about Rs. 1½ crores. On the other hand, the effects of malnutrition on primary school children are not less serious than on children of higher ages.

In many parts of India it is the custom for children to have a meal before they leave for school and have no more food until they return home in the late afternoon. Such children cannot be expected to have the necessary energy to devote themselves to their school tasks. It is essential, both from the point of view of education and of health, that all the children should be given a midday meal, whether it is brought by the children from their homes or provided at the school by the authorities. Where food is provided by the authorities, parents who are able to pay should contribute their share to the cost of the scheme and in the case of children whose parents are too poor to pay no charge should be made. There is increasing recognition of the necessity for extending the facilities for primary education and for making it compulsory as far as possible but it is not sufficiently recognised that much of the value of such education will be lost if the child is not adequately nourished.

The main problem therefore is that of providing a satisfactory school meal at as low a cost as possible. No uniform scheme can be devised to meet the requirements of all. Various methods must be attempted for securing for the children of different economic levels some extra nourishment, and suggestions in this connection are now put forward.

The value of milk in promoting the growth of children and increasing their general sense of well-being has been definitely proved by large scale experiments in India and abroad. But whole milk is too costly an article of food to be widely used in this country. Researches by the Nutrition Research Laboratories, Coonoor, show that skimmed milk possesses considerable food value. It has now been made easily available for educational institutions by the removal of the import duty on it. Even so this food may be beyond the reach of poor primary schools.

Other experiments carried out by the Coonoor Laboratories have shown that much of the value of whole and skimmed milk is contained in calcium lactate, an important constituent of both. The administration of one gramme of calcium lactate per day has been shown to be of definite benefit to the child and costs only about one anna per child per month. Calcium

Lactate should therefore be within the reach of a wide section of the population.

Germinating grain has been found to be of considerable value in warding off food deficiency diseases and is a very desirable supplementary food for children. Germinating grain can be prepared easily and costs little.

Much more might be done to develop school gardens which could provide vegetables to supplement the children's midday meal. The lack of vegetables is a common deficiency in Indian diets and the development of school gardens in addition to providing nourishment for the children will have a desirable educative influence.

The Committee desire to draw the attention of health and education authorities in the Provinces to these facts, in the hope that use will be made of them in improving the nutrition of the school population.

The teacher can and should play an important part in teaching the principles of nutrition to school children and in educating the parents with regard to the methods of improving the diet of the children within the means available to them. Sound instruction of the teachers and children in nutrition requires that simple text-books embodying the fundamental principles of the subject should be made available in the different Indian languages. The Committee were informed that the preparation of such a text-book is engnging the attention of the Nutrition Advisory Committee of the Indian Research Fund Association. This text-book, when published, and the Health Bulletin entitled "The Nutritive Value of Indian Foods and the Planning of Satisfactory Diets", should be translated by Provincial Governments into the principal Indian languages and made available to the school authorities.

CHAPTER VI.

PERSONAL AND ENVIRONMENTAL HYGIENE.

The practice of personal hygiene by the school children depends on many factors, not the least important being the example set by the teacher. Not only must the teacher's personal cleanliness be of a high standard but his physique and general health must also be good. To ensure this no teacher should be appointed without passing a medical examination of fitness approved by the Government of the Province or State.

Considerable hardship may result from the application of this recommendation unless at the same time a medical examination of all candidates for admission to training schools and colleges is instituted and the Committee therefore recommend that this should be done. At an earlier stage the school doctor and the teacher can do much to discourage pupils of poor physique or handicapped by special defects from choosing teaching as a profession.

During training and on subsequent employment it is no less important that a careful watch should be kept on the teacher's health. Periodical examinations of the teacher by the school doctor should present no serious difficulty. The object is as much to protect the teacher's own health as to eliminate any danger to the school population. If the medical examina-

tion brings to light any disease or defect every effort must be made to help the teacher to a complete recovery. Treatment may not be the only means necessary, the conditions of work and the amenities provided for the teacher's comfort also deserve attention.

The teaching and practice of personal hygiene in school are dealt with in a subsequent chapter and it is only necessary here to draw attention to the need for encouraging personal cleanliness amongst the school children and for providing the facilities required for the attainment of a high degree of personal cleanliness.

In a number of Provinces and States cleanliness parades are held by the teacher. In some schools the parades take place daily, in others weekly or biweekly, in others a cleanliness parade is held only at the time of the school doctor's visit. Parade inspection is most suitable for the younger classes. A daily parade of the school children before the school starts gives the teacher an opportunity of judging the cleanliness standards of the children and of supervising the practice of cleanliness. The scope of the parade should not, however, be limited to an inspection of cleanliness; minor ailments, fatigue, malnutrition and other departures from health can and should be detected and suitable advice given or treatment initiated when necessary.

The detection of dirty children has no value unless arrangements are made for remedying the conditions. Facilities for washing are particularly important and in towns with a pipe water supply this should present no difficulty. In rural areas the construction of a sonkpit and the supply of water of reasonable purity are the minimum requirements. In areas where facilities for bathing are limited school baths are an invaluable asset to any scheme for promoting the health of the school child.

The beneficial results of membership of the Junior Red Cross on the personal hygiene of the pupils is mentioned elsewhere in the report.

The question of environmental hygiene was not extensively discussed since the School Buildings Committee appointed by the Central Advisory Board of Education are already dealing with this subject.

The replies received from Provinces and States to the questionnaire state that, generally speaking, the lighting, ventilation and construction of Government schools are satisfactory. On the other hand, schools under private management are often housed in buildings not originally designed for the use of schools and fall short of reasonable hygienic standards. The selection of a house for use as a school is frequently left to a Sub-Inspector of the Education Department who usually takes no account of the health requirements. Where it is necessary to use ordinary buildings as schools the responsible education authorities should obtain the advice of the local health officer as to their suitability.

Little scientific data on the lighting, ventilation and heating of schools are available with regard to tropical conditions. The School Buildings Committee of the Central Advisory Board of Education have recommended the appointment of a body of experts to investigate and report on suitable standards for Indian conditions. This recommendation is supported.

The necessity for providing a safe water supply in schools requires special emphasis. The Committee recommend that, whatever the source

of supply, there should be provided in each school some type of container in which wholesome water, kept under lock and key, is made available to the children by being drawn off through a tap.

As regards the provision of latrines the Committee are of opinion that, for schools in rural and suburban areas, the bored-hole type of latrine offers a satisfactory solution in most areas. It is cheap to construct, costs practically nothing to maintain and should prove satisfactory in every way for preventing soil pollution in and around the school premises. The possibility of surface wells becoming polluted by infection travelling through the subsoil water from bored-hole latrines has been used as an argument against the wider use of this type of latrine. This danger seems to have been exaggerated. If preliminary investigations are made to determine the direction of the flow of subsoil water the location of bored-hole latrines can be decided on with safety.

The questionnaire asked for information on the extent to which suitable school furniture is provided but the details given were scanty. In India desks are in use in the higher classes but the children of primary schools are often made to sit on the floor with no support for the back. The effect of posture on the child's health and growth, with special reference to the use of desks and seats, is a matter of great importance and requires special investigation by an expert body. The Committee consider that, without such an investigation, it is not possible to assess the ill-effects, if any, that the habit of squatting on the floor is producing on the health of primary school children.

The attention now devoted by school authorities to environmental hygiene is not sufficient. The Committee therefore consider that all officers inspecting schools, whether they belong to the Education, Medical or Public Health Departments, should report on the sanitary condition of the premises and the surroundings and bring to the notice of the education authorities such defects as they discover.

But no permanent improvement of the environment can be expected until the school children and their teachers begin to take an active interest in keeping the school premises clean. Cooperative effort among the children for the cleaning up of the school and its surrounding areas should be encouraged. The children can also take part in other forms of communal health activity. Recent work in the rural area around Delhi has shown that one of the most useful methods of preventing malaria is by the use of insecticides to kill adult mosquitoes in houses. The children in these Delhi areas have been trained to do this work. In India malaria is the most important health problem and has a crippling effect on the lives of an enormous number of school children in the areas where the disease is prevalent. The control of the disease by the eradication of mosquito breeding places is often too costly, as it involves expensive engineering works, but in the destruction of adult mosquitoes with insecticides an effective method has become available for reducing the infection of school children. The method is not expensive and, it is hoped, will become cheaper. A progressive teacher can encourage the children to help in the filling or draining of shallow depressions where water collects and the malaria mosquito breeds. These are simple measures which require only the initiative and inspiration of the teacher for their success. A passive attitude regarding the prevalence of malaria has been allowed to continue too long.

CHAPTER VII.

TEACHING OF HYGIENE IN SCHOOLS AND IN TRAINING SCHOOLS AND COLLEGES.

Replies to the questionnaire show that on paper at least the importance of training the teacher and the children in a healthy way of life is realised by the Education authorities since hygiene is included in the syllabus of every Training College and nearly every Training School in the Provinces and States from which replies were received. Similarly with one or two exceptions hygiene is stated to be a subject of study in all primary and secondary schools. In the latter hygiene is not infrequently an optional subject. This seems reasonable in the senior classes if hygiene has been well taught at an earlier stage in the school curriculum.

While the general situation on paper sounds satisfactory the low standards of personal and environmental hygiene met with in many schools are such as to forbid an easy acceptance that all is well. These low standards lead to the conclusion that something is wrong with the content of the syllabuses and the methods of teaching hygiene both in training institutions for teachers and in schools for children.

Put shortly, the successful inculcation of healthy habits in school children will depend primarily on the standards set by the teacher in his personal hygiene and on his knowledge of and outlook on health questions. The teacher must be the model to be followed by the child with regard to health and healthy ways of life. If any progress is to be made, the health consciousness of the teacher must be stimulated by better teaching of hygiene in the training schools and colleges.

As a first step towards securing the fitness of the teacher for the teaching of hygiene, the Committee wish to affirm their view that practical hygiene should be a compulsory subject in all courses for the training of teachers, and that particular attention should be paid to the subject in training schools for teachers, in primary and vernacular schools.

The syllabus in use in many of the training schools and colleges requires revision, if the new demands which will be made on the knowledge and resourcefulness of the teacher as a part of the school medical service, are to be met. In only one or two Provinces has an effort been made to prepare and publish a text-book on hygiene in the vernacular for use in training schools. In training colleges the text-books prescribed are those in use in the United Kingdom. As the personal, communal and environmental aspects of hygiene in India differ widely from those obtaining in a temperate climate text-books dealing with Indian conditions are indispensable. Apart from text-books, a handbook on health education for use by school teachers would be a valuable addition to the equipment of the teacher.

Replies to the question "Is hygiene included in refresher courses for teachers", were in the negative in the majority of Provinces and States. In order to ensure that the knowledge and interest of teachers in the subject are kept alive and in order to keep them acquainted with new developments, the attention of educational authorities is drawn to the great desirability of providing facilities for refresher courses in the subject.

The Provincial educational and health authorities should collaborate in drawing up a syllabus for each type of training institution. The preparation and publication of text-books for use in training colleges and schools and of handbooks for the guidance of teachers responsible for health education are a necessary corollary to the revision of the syllabuses.

In the recommendations of the Committee regarding the organisation of medical inspection the teacher is called upon to play a very important part. On account of the ignorance of parents and the limited number of doctors it will largely fall on the teacher to detect early departures from normal in a child, to assist in treatment, to make contact with the home in order to influence the parents and to keep the teaching and practice of hygiene alive in the school. For these reasons the Committee consider that practical demonstrations should form an important part of the course of training. The teacher should be taught by practice how to recognise defects in children and to do elementary treatment as it is only by his learning to do so that it will be possible to establish a school medical service on a reasonably wide scale.

Certain parts of the training course will require to be taught, if possible, by a doctor, preferably by a member of the regular school medical service, the establishment of which is recommended by this Committee.

In regard to the teaching of hygiene to children the instruction now given in primary schools in several Provinces is inappropriate to the age of the child. The training of the child in health habits does not begin sufficiently early and the approach to the subject is through disease rather than through a study of the requirements for health. The Committee consider that instruction in hygiene should begin at the earliest age possible. At the beginning the instruction should be wholly on practical lines and devoted mainly to personal hygiene, while at a later age the child's interest can be directed to environmental hygiene and the health of the community. The Committee wish to emphasise that unless greater attention is given by the responsible authorities to the planning of school buildings and to the provision of equipment which will make the practice of healthy habits possible, progress will be difficult. It is futile to try to awaken in the child an interest in and a sense of responsibility for his own health and for the sanitary condition of his surroundings so long as the schools themselves fall short of reasonable hygienic standards. As the teacher should be the model for the child to follow in personal standards, the school should be the model for the home in regard to environmental cleanliness.

The replies from the Provinces show that the active and willing co-operation of the children in health matters is best secured in schools where a movement such as the Junior Red Cross is alive. In such schools, it is stated, a notable improvement has been made in the personal cleanliness and healthy habits of the children. The Committee are of opinion that the Junior Red Cross Health Game is an appropriate and valuable means of laying the foundations of a healthy life during the primary school years. At a later stage with fuller instruction in hygiene, and particularly in the environmental aspects of the subject, the child should become an asset to the school authorities for the care and orderliness of the school buildings and compound. Later his activities can be extended beyond the school boundaries to the community where he can take part in antimalaria campaigns and other measures for the control of disease and for a general raising of the standard of life in the community. In the senior classes

the children can also assist the teacher in the recording of heights and weights and in the treatment of minor ailments under the direct supervision of the teacher. In this connection the Mackenzie school course of First Aid, Home Nursing and Sanitation should prove to be of great value to the pupils.

For girls in the upper classes a training in mother-craft should prove invaluable and in order to make the training practical they should be given opportunities of visiting child welfare centres as far as this is feasible.

CHAPTER VIII.

PHYSICAL EDUCATION.

The information received from the Provinces and States shows that in a general way physical education has received more attention in secondary than in primary schools. The physical education of girls has received much less attention than that of boys.

The employment of trained physical instructors is practically limited to secondary schools, while in primary schools the teaching of the subject is entrusted to ordinary teachers who may or may not have had training in physical education.

Colleges for physical training exist in Madras, Hyderabad, Calcutta, Lucknow and Lahore. In many of the other places, facilities for physical training are provided in the training schools for primary and secondary school teachers.

The time devoted to formal physical exercises is usually part of the school hours while games are played after school has finished. The period set apart for physical exercises varies in the Provinces and States, from about 20 minutes each day to two periods of 30—45 minutes per week.

The types of physical exercises adopted in schools include games, gymnastics, drill, boxing and indigenous types of recreation such as folk dances. The Committee were informed that a lot of old fashioned drill goes on in schools which obviously does the children no good; far from benefitting them, it merely tires them. Many schools have physical drill at the end of the day, a time which should be avoided, if possible.

Physical education is everywhere stated to be compulsory for boys in secondary schools. An important question in this connection is that of ensuring that the nature and extent of the exercises that individual children are made to take do not go beyond their physiological capacity. The questionnaire asked whether the school doctor prescribed the type and extent of physical exercise to be taken by pupils suffering from physical disabilities and what other provision existed for this purpose in schools without a doctor. The replies state that where the services of a school doctor are available, his advice is followed; otherwise the physical instructor, the headmaster or the class teacher determines the class of exercise.

The Committee having considered the information available regarding the existing provisions in the country for the physical education of school-children make the following recommendations:—

ORGANISATION FOR THE SUPERVISION OF PHYSICAL EDUCATION.

In each Province and State, the Educational Department should have at headquarters an experienced and well qualified officer to organise the

scheme for physical instruction in the colleges and schools. Under him there should be a District Inspector of Physical Education for each district. In every secondary school a fully trained physical instructor should be on the staff and the appointment of such an instructor should be a condition for a grant-in-aid. The number of primary schools is so large that the provision of wholetime trained instructors in all such schools is not practicable. However, the necessity for some skilled supervision of physical exercises in elementary schools is urgent. District Inspectors of physical education should therefore organise training camps, lasting for about a month, for primary school teachers. The neglect of physical education for school girls up to now should be remembered when a Provincial scheme is being drawn up, and a special effort should be made to accelerate the rate of progress of physical education in girls' schools.

PHYSICAL INSTRUCTORS.

Physical education is intended to assist in promoting normal physiological development and to correct physical defects in so far as they can be remedied by such training. The physical instructor should therefore have had training in the elementary principles of physiology of the hygienic mode of life and of nutrition. He should be trained to detect early signs of fatigue in the child and to regulate (under the guidance of a doctor in certain cases) the nature and amount of exercise for individual pupils. The Committee have, earlier in this report, drawn attention to the desirability of the physical instructor being present during the medical examination of the children. He should be allowed a period or periods within the time-table when he can give remedial exercises in cases recommended by the school medical officer.

The physical instructor should also help the child to become socially minded. Participation in games, especially team games, teaches the child to subordinate his desire for personal success to the interest of the team as a whole. It has been stated that an efficient system of physical education "should encourage the concurrent development of a healthy physique, alert intelligence and sound character"*. Participation by the children in games and in the varied corporate activities of the school, such as the Scout and Junior Red Cross movements, is essential for the attainment of these objects. The physical instructor who is concerned with providing for the child a wide and varied experience in healthful living, should therefore be fitted to guide all these activities in the school.

It will thus be seen that the training of the physical instructor will require to be of a comprehensive nature. The old concept of a drill-master or a weight lifting expert is now obsolete. The Committee had before them details of the training given to students in some modern colleges for physical training. Health education finds a prominent place in the programme of study, the aim being to develop in teachers the incentive and the ability to train children to practise healthful living, and to enable teachers to cooperate intelligently in medical inspection. The Committee agree with these aims and commend them to those responsible for the training of physical instructors in different parts of the country.

*Syllabus of physical training for schools issued by the Board of Education, England and Wales, 1933.

CHAPTER X.

ADMINISTRATION.

Provincial and District Headquarters.

The Education, Medical and Public Health Departments in the Provinces are all intimately concerned with the successful working of the school medical service. Any scheme proposed for the administrative control of the service must take note of this fact. During discussion in committee it was urged that as the full cooperation of the teachers would be essential, the Education Department should be given the administrative control of the service. The teachers would have to be brought into the scheme very largely to assist the school medical officers, and the fullest cooperation would be secured if both the medical officer and the teacher are under the same administrative authority. The Committee felt at the same time that the school medical services in the Provinces will have to work in the closest cooperation with the existing health services, and must derive the fullest advantage from the facilities and knowledge already available in the Medical and Public Health Departments. Coordination at provincial headquarters is therefore of the greatest importance.

In view of the above considerations the Committee came to the conclusion that school medical services should be created in the Provinces and that the administrative control of these, including the necessary budget provision, should be under the Education Department. In each major Province there should be a Chief School Medical Officer to administer the school medical service which should contain a sufficient number of doctors for the administrative and executive duties of medical inspection and treatment of school children. They also consider that in order to promote coordination in regard to school medical work between the Education Department and the Medical and Public Health Departments, a coordination committee of the Director of Public Instruction, Surgeon General or Inspector General of Civil Hospitals and the Director of Public Health should be set up in major Provinces.

In making the recommendation for the appointment of a Chief School Medical Officer the Committee do not regard it as necessarily involving the appointment of a third administrative medical officer at Provincial Headquarters. They are of opinion that, in order to secure as much coordination as possible and to facilitate the economic use of doctors already in the employment of the Provincial Government, it may be found convenient for the Surgeon General or the Inspector General of Civil Hospitals as the case may be or the Director of Public Health to act as Chief School Medical Officer under the Minister for Education. Whether one of these officers acts as Chief School Medical Officer or a separate appointment is made is obviously a matter for each Provincial Government to decide.

Coordination of effort among the officers of the three Departments should also be extended to the districts. The District Medical Officer is in charge of medical administration while the control of public health work is divided between Municipal Health Officers, wherever they exist, and the District Health Officer who is responsible for the rural areas. It is recommended that there should be a District School Medical Officer for the organisation and supervision of the schemes in urban and rural areas. This Officer should work in close cooperation with the District Medical Officer and the Municipal and District Health Officers.

The school medical services in individual local areas are the statutory responsibility of Municipal Committees and District Boards. In India as in England, Government control over the efficiency of local health administration is exercised through the judicious distribution of grants-in-aid to the responsible local bodies. The same principle should apply in the case of local school medical services. The Committee consider that Government's grant-in-aid should be at least 50 per cent of the cost, and that necessary safeguards should be incorporated in the conditions governing the distribution of such grants. In this way the Provincial Government will be able to ensure that only considerations of efficiency will determine the recruitment of personnel and the standard of administration to be maintained by the local authority.

The expenditure on the supervising staff maintained at Provincial and District headquarters should be a charge on the Provincial funds. A Provincial cadre of school Medical Officers will attract suitable men to the service. They should be capable of directing the work in the local areas both from the administrative and technical points of view and will therefore require special qualifications and experience. Some doctors after a period of service in school medical work may desire to take up some other branch of medicine. This situation might be met by the deputation to the school medical service of officers from the Medical and Public Health Departments, and it will be an early task of the Coordination Committee at Provincial Headquarters to formulate a practical scheme for the appointment and deputation of such officers. Continuity in the school medical work is however vital and the period of deputation of a doctor for this work should be at least four to five years.

Urban Schemes.

The provision of medical facilities, the number of school children, the proportion of well-to-do parents and the facilities for transport vary widely among urban areas. It is therefore useful to divide these areas into two broad groups, one including the cities and large towns and the other the remaining urban centres of population. In regard to the first it has already been pointed out that the available resources may, in many cases, be such that there should be no great difficulty in attempting to develop a school health service on as broad a basis as has been done in Western countries. With respect to the latter group, a less ambitious programme is in keeping with the prevailing conditions.

In the larger towns the Committee consider that for efficient service the employment of wholetime school medical officers is essential. Such officers should not be permitted to engage in private practice. A scheme should include primary and secondary schools and it should be a condition of recognition and grant-in-aid that each school should either take advantage of the local school medical scheme or have approved medical arrangements of its own. The Committee consider that no child should be deprived of necessary treatment on account of the poverty of its parents. Medical inspection and treatment should therefore be provided free for the children of all primary schools and of the primary departments of secondary schools. Treatment should include admission to the free wards of Government hospitals and operation treatment if required. In secondary schools where fees are charged for tuition, it is reasonable that an additional fee should be levied to cover the cost of medical inspection and treatment at the school clinic. Where no school fees are charged it is not advisable to introduce a special fee for the school medical service.

In the smaller towns it will be necessary to utilise the services of part-time doctors. They may come from Government or local body hospitals and dispensaries or may be health officers. Others may be private practitioners. The Committee realise that with a part-time doctor there may be certain difficulties. The demands of private practice on his time may make it difficult for him to devote the necessary time to his school duties. It has been stated that some part-time school doctors have utilised the contacts which school work offers to extend their private practice. Strict supervision is required to prevent such abuses. The Committee recommend that the amount paid to a part-time private practitioner should bear the same relation to the salary of a full-time officer as that between the respective number of hours spent by each on the work. The duties to be performed by part-time doctors should be carefully defined and should include inspection and treatment.

Rural Schemes.

Rural areas present more difficulties than towns and cities. The extent to which medical relief and other health services have been developed in rural areas differs widely in the provinces and sometimes in different areas in one province. In some provinces subsidised rural practitioners have been established and in some others no such service has been provided. Again the number of medical men in general practice in rural areas varies greatly.

Certain facts relating to Bengal were described to the Committee. The average population in a district is approximately two millions of which the number of school children is estimated at 200,000. No subsidised practitioner service exists in the province. As regards facilities for travel, conditions differ widely in Eastern Bengal with its water transport system and in Western Bengal which is drier and has more rapid communications.

Similar diversity of conditions may exist in other provinces and the Committee therefore came to the conclusion that before a school medical inspection scheme can be drawn up for rural areas it is necessary that a preliminary survey be made to determine the extent of the medical facilities that are available in such areas and to determine ways of supplementing them. The survey should take into account the strength of the school population in the area, the medical men employed by Government and local bodies, the number of private practitioners, the public health organisation that exists, the distribution of schools and the means of communication between the different parts of the area.

Certain possible methods of securing medical men for inspection and treatment may be mentioned. The services of doctors in charge of Government or local body dispensaries or of private practitioners may be utilised on a part-time basis. It may be necessary to employ wholetime touring medical officers to carry out medical inspection but doubt was expressed regarding the value of this class of medical officer. Adequate supervision of their work is difficult. In very extensive and sparsely populated areas the employment of such an officer cannot perhaps be avoided. As in the case of urban schemes the part-time school medical officer should be paid a proportion of the wholetime medical officer's salary corresponding to the proportion of wholetime work which he carries out.

CHAPTER XI.**SUMMARY AND RECOMMENDATIONS.***Introduction and Historical.*

1. The Committee wish to draw special attention to the frequency with which a system of medical inspection has been started in a Province only to be abandoned after a short while as a measure of economy. This indicates that there has not been a clear appreciation of the fundamental necessity for and the essential characteristics of a school medical scheme. The Committee emphasise that satisfactory arrangements for school medical inspection and treatment form an essential part of any efficient system of public education. (Page 201).

Aims and objects of a School Medical Service.

2. The Committee consider that the aims and objects of a school medical service, as defined by Sir George Newman, are applicable to India and that it is absolutely essential that steps be taken to ensure that children attending school are healthy and kept healthy. This is necessary not only from the medical but also from the educational point of view. (Page 202).

3. In developing a school medical service in India a big difficulty is the inadequate number of qualified doctors and nurses. However, in some of the large cities it should be possible to organise school health work on as wide a basis as in the West. (Page 202).

Medical Inspection

4. Probably fifty per cent. of the children attending school would be found to require medical attention or medical observation. (Page 203).

5. Too much weight cannot be given to health considerations in determining the age at which children should be admitted to school. The age of school entry should be not more than six and preferably five. (Page 203).

6. Many routine examinations of school children in some parts of India are unnecessary. The routine examinations should be (a) on entry into a primary school at approximately its sixth year, (b) at the 11th year and (c) at the 14th year. For children in high schools when leaving at the age of 17 a final examination is desirable. Children going from a private school without a medical inspection scheme to a secondary school should be given a routine examination as soon as possible after admission. (Page 204).

7. A whole-time doctor may reasonably be expected to carry out 5,000 routine inspections in a year. (Page 204).

8. A medical record will have to be maintained for each child which will go with the child when he goes from one school to another. (Pages 204-205).

9. Height and weight records should be taken not less than twice a year. This work should be done by the teacher. (Page 205).

10. Medical inspection should only be carried out by a qualified doctor with special training for the work. (Page 205).

11. Medical inspection should take place in the school during school hours and if possible the parents should be present. In schools with a physical instructor he should as far as possible be available during the inspection. The doctor should go through the inspection results with the teacher. (Page 205).

Treatment and Follow up.

12. A scheme for medical inspection without provision for treatment and follow up is of little or no use. Schemes for treatment must include provision for supplementary nourishment. Special arrangements will be necessary for treating dental defects, tonsils and adenoids and for correcting the more serious defects of vision and hearing. (Page 207).

13. In urban areas accommodation for school clinics should be provided at convenient centres. In many towns, buildings suitable for the purpose already exist, such as maternity and child welfare centres. Where it is not possible to provide special school clinics the next best plan is a special session for school children at the local hospital or dispensary. (Page 208).

14. Much of the minor elementary treatment can be done by the teacher provided he has received the requisite instruction. (Page 208).

15. Any campaign for the reduction and prevention of disease amongst school children must be carried into the home if sound progress is to be achieved. (Page 208).

16. Every effort should be made to secure the interest and cooperation of health visitors in following up the defective school children in their homes. (Pages 208-209).

17. The lack of contact in every type of school between teachers and parents is a regrettable feature of school life in India which the Committee feel should be remedied as soon as possible. (Page 209).

18. As the teacher is the solution of so many of the problems of school health, the Committee urge the vital importance of making the conditions of employment more attractive to the right type of man and woman. (Page 209).

Nutrition.

19. The children of primary schools are not generally included in the schemes for midday meals. The effects of malnutrition on primary school children are not less serious than on children of higher ages. All the children should be given a midday meal, whether it is brought from their homes or provided at the school. Parents able to pay should contribute to the scheme. (Pages 209-211).

20. Simple text-books embodying the fundamental principles of nutrition should be made available in the different Indian languages. (Page 211).

Personal and Environmental Hygiene.

21. The practice of personal hygiene by the school children depends largely on the example set by the teacher. Not only must the teacher's personal cleanliness be of a high standard but his physique and general health must also be good. All candidates for admission to training colleges

and schools should be medically examined. The teacher should be medically examined at intervals as much to protect his own health as to eliminate any danger to the school population. (Pages 211-212).

22. A daily parade before the school starts gives an opportunity of judging cleanliness standards. It should be a health and cleanliness parade. (Page 212).

23. Where it is necessary to use ordinary buildings as schools the responsible educational authority should obtain the advice of the local health officer as to their suitability. (Page 212).

24. The appointment of a body of experts to report on suitable standards for lighting ventilation and heating of schools is recommended. (Page 212).

25. In each school some type of container should be provided in which wholesome water kept under lock and key is made available. (Pages 212-213.)

26. Regarding the provision of latrines, the bored-hole latrine offers a satisfactory solution in most rural and suburban areas. (Page 213.)

27. The effect of posture on the child's health and growth with special reference to the use of desks and seats is a matter of great importance and requires special investigation by experts. (Page 213.)

28. Cooperative effort among the children for the cleaning up of the school and its surrounding areas should be encouraged and suggestions are made for carrying this out. (Page 213.)

Teaching of hygiene in schools and in training schools and colleges.

29. Instruction of school children in hygiene should begin at the earliest age possible and at the beginning should be made wholly on practical lines and devoted mainly to personal hygiene. (Pages 214-215.)

30. The Junior Red Cross Health Game is an appropriate and valuable means of laying the foundations of a healthy life during the primary school years. (Page 215.)

31. Hygiene should be a compulsory subject in all courses for the training of teachers. (Page 214.)

32. Practical demonstrations should form an important part of the course of training in hygiene for teachers. They should be taught by practice to recognise defects in children and to do elementary treatment. (Page 215.)

33. Text-books on hygiene dealing with Indian conditions are indispensable. (Page 214.)

Physical education.

34. The Education Department headquarters staff should include a well qualified and experienced officer to organise the scheme for physical instruction in colleges and schools. He should have an Inspector for each District. (Pages 216-217.)

35. The physical instructor should have training in the elementary principles of physiology, of the hygienic mode of life and of nutrition. (Page 217.)

36. Health education should find a prominent place in the programme of study of the physical instructor, the aim being to develop in them the

incentive and the ability to train children to practise healthful living and to enable them to cooperate intelligently in medical inspection. (Page 217.)

37. Every secondary school should have a fully trained physical instructor, and his appointment should be a condition for a grant-in-aid. (Page 217.)

38. District Inspectors should organise training camps for physical instruction, lasting about a month, for primary school teachers. (Page 217.)

39. A special effort should be made to accelerate the rate of progress of physical education in girls schools. (Page 217.)

40. Some period every day during school hours should be devoted to organised physical activity but undue emphasis on drill is undesirable. Organised games should form an important part of the curriculum for physical education. (Page 218.)

Corporate activities.

41. The Education Department should be strongly represented on the Junior Red Cross Committees in order that the potential benefit of this important movement may become more widespread throughout the schools. (Page 219.)

42. The curriculum of the school should be arranged to provide at least one period a week for some corporate activity in addition to physical training and organised games. (Page 219.)

43. A sustained campaign to interest the parents in the school activities and to increase the opportunities of contact between the parents and the school authorities must be undertaken. (Page 219.)

44. Much can be done through education to improve existing health conditions, and the simultaneous education of the child and his parent is an important part of the corporate activities of the school. (Page 219.)

Administration.

45. School medical services should be created in the Provinces. (Page 220.)

46. The administrative control of these, including the necessary budget provision, should be under the Education Department. (Page 220.)

47. In each major Province there should be a Chief School Medical Officer to administer the school medical service which should contain a sufficient number of doctors for the administrative and executive duties of medical inspection and treatment of school children. (Page 220.)

48. In order to promote coordination in regard to school medical work between the Education Department and the Medical and Public Health Departments, a coordination committee of the Director of Public Instruction, Surgeon General or Inspector General of Civil Hospitals and the Director of Public Health should be set up in major Provinces. (Page 220.)

49. In making the recommendation for the appointment of a Chief School Medical Officer the Committee do not regard it as necessarily involving the appointment of a third administrative medical officer at Provincial headquarters. They are of opinion that, in order to secure as much coordination as possible and to facilitate the economic use of

doctors already in the employment of the Provincial Governments, it may be found convenient for the Surgeon General or the Inspector General of Civil Hospitals as the case may be or the Director of Public Health to act as Chief School Medical Officer under the Minister for Education. Whether one of these officers acts as Chief School Medical Officer or a separate appointment is made is obviously a matter for each Provincial Government to decide. (Page 220.)

50. Government control over the efficiency of local school medical inspection schemes should be exercised through the judicious distribution of grants-in-aid to the responsible local bodies. Government grants-in-aid should be at least 50 per cent of the cost. (Page 221.)

51. The expenditure on the supervising staff maintained at Provincial and District headquarters should be a charge on the provincial funds. (Page 221.)

52. Continuity in school medical work is vital and the period of deputation of a doctor for this work should be at least four to five years. (Page 221.)

53. In the larger towns the employment of wholetime school medical officers is essential for efficient service and such officers should not be permitted to engage in private practice. A scheme should include primary and secondary schools and it should be a condition of recognition that each school takes part in the scheme (Page 221.)

54. Medical inspection and treatment should be provided free for the children of all primary schools and of the primary departments of secondary schools. (Page 221.)

55. In secondary schools where fees are charged for tuition an additional fee may be levied to cover the cost of medical inspection and treatment. (Page 221.)

56. Before a school medical inspection scheme can be drawn up for rural areas a pieimentary survey should be made of the medical facilities available and of the ways of supplementing them. (Page 222.)

Sd. G. G. JOLLY (*Chairman*).

,, E. COTTER.

,, W. C. PATON.

,, A. C. BANERJEA.

,, C. M. GANAPATHY.

,, JEAN M. ORKNEY.

,, J. SARGENT.

,, S. N. MOOS.

,, W. A. JENKINS.

ANNEXURE

SCHEDULE FOR MEDICAL INSPECTION.

*Name of Education Authority.**Primary and Secondary Education*

I. Name of School..... District..... town/village.....

Name of the pupil..... Name and address of parent or guardian.....

Date of birth..... 1

II. Personal history—	Year.	Year.	Year.	Year.
Measles
Whooping cough
Diphtheria
Chickenpox
Vaccination and date
Malaria
Smallpox
Typhoid
Dysentery
Other diseases	2
Family medical history (if exceptional)

III Height	3
Weight	3
Age	4
Standard . . . . .	.
Regularity of attendance . . . . .	.
Mental capacity	5
Vision	6
Hearing	7

1st routine examination.	2nd routine examination.	3rd routine examination.	4th routine examination.
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IV. Date of M. I. Initials of M. O.

Parents present—

General conditions—

Nutrition	8
Clothing	9
Footwear	9
Cleanliness, body, hair and scalp	10
Chest measurement	11

	1st routine exami- nation.	2nd routine exami- nation.	3rd routine exami- nation.	4th routine exami- nation.
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Special conditions—

External eye disease	12
Vision	13
Speech	14
Teeth and gums	15
Ear disease	16
Hearing	17
Skin disease	18
Nose or throat	19
Tonsils	20
Adenoids	—
Glands, cervical and general	—
Mental condition	21

Disease or deformity—

Heart	22
Anæmia	23
Lungs	—
Nervous system'	24
Digestive system	25
Liver	26
Spleen	27
Tuberculosis	28
Rickets	29
Deformities (posture)	30
Acute infectious diseases	—
Other diseases or defects	31

The numbers relate to the attached notes.

V. Notification card	32
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Date of issue

Date of return

VI. Doctor's observations	33
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VII. Teacher's observations	34
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Special inspections and re-inspections 35

Date..... Notes Place, duration
and result of treatment.

NOTES ON THE SCHEDULE FOR MEDICAL INSPECTION.

It is suggested that the schedules for boys and girls should be of different colours or should be coloured differently at one of the four corners. The schedule makes provision for the four routine examinations a child is likely to undergo during his or her school career, namely, at approximately the 6th, 11th, 14th and 17th year of age.

Sections I, II, III and VII are to be filled in by the school teacher prior to medical inspection. Sections IV, V, and VI are to be filled in by the school doctor.

1. To be stated exactly, date of month and year.

2. Should include any other illness likely to have an effect direct or indirect on the health of the child in after life, e.g., rheumatism, tonsillitis, tuberculosis, syphilis, fits, operations, etc.

3. Height and weight should be recorded by the teacher at least twice yearly and preferably once every term and the record should be available at the time of medical inspection.

4. To be stated in years and months, e.g., 11 2/12.

5. State the approximate number of years the child is educationally behind the average of the class.

6. To be tested as in Note 13. Failing this method the teacher should record as normal or defective on the presence or absence of such signs as headache, holding the book close, inability to see the blackboard etc.

7. Record as normal or defective. Note the child's attitude during class, the repetition required during dictation lesson or when commands are given, etc.

8. Classify as good, normal, subnormal, poor. The alertness, vigour and expression of the child, the appearance of the skin and hair, the redness or pallor of the mucous membranes should be taken into consideration in determining the nutrition.

9. Note insufficiency, need of repair, cleanliness (good, average, bad) presence or absence of footwear.

10. Note the cleanliness of body and head separately as clean, slightly dirty, dirty, scurf, nits, vermin and sores as well as skin disease should be looked for; sores and skin diseases being noted under "Special Conditions, skin diseases."

11. The chest measurement should be taken at the level of the junction of the 4th costal cartilage and the sternum and should be recorded at full inspiration and expiration.

12. Including blepharitis, sty's, conjunctivitis, trachoma, diseases of the cornea or lens, squints, nystagmus, etc.

13. To be tested by Snellen's Test Types at 6 metres (20 ft.) and recorded for each eye separately thus R. 6/6 and 6/12. Children under 6 years need not be tested by Snellen's types.

14. Including defects of articulation, e.g., stammering, lisping, etc

15. Note pyorrhoea, abscesses, number of carious teeth, cleanliness, special features, e.g., irregularity, Hutchinson's teeth, etc.

16. Including otorrhoea, wax etc.

17. Each ear to be tested separately by the forced whisper method. Numbers should be whispered and the child should be asked to repeat the numbers.

18. Includes contagious diseases, e.g., ringworm, scabies, etc.

19. Note mouth breathing, nasal catarrh, deflected septum, enlarged turbinates, polypi, malformations of plate etc.

20. Record as N. (normal) + (slight enlargement) + + (moderate and severe enlargement) and for each tonsil separately, e.g., R+ / L + + .

21. Note as bright, average, dull, backward, mentally defective.

22. Functional or organic disease

23. Normal (N): slight + severe + + .

24. Including paralysis, epilepsy, emotional or social instability.

25. Note indigestion, anorexia, diarrhoea, constipation etc.

26. Note in inches below costal margin.

27. (1) State whether the spleen is palpable or not.

(2) If the spleen is palpable, ascertain the position of the costal margin and feeling gently below it, ascertain whether the spleen is projecting below the costal margin. If it does, outline with a grease pencil that portion of the edge of the spleen which projects most freely (the 'apex' of the spleen) while the child is standing in a perfectly natural position, equally on both feet, and looking directly to his front. Using this mark as a guide measure in centimeters the distance between the apex mark and the costal margin. Record this as the size of the enlarged spleen for the child.

(3) To find the 'average enlarged spleen' of a group of children take the sum of these measurements and divide the sum by the number of children in whom splenic enlargement is recorded.

28. Glandular, osseous, pulmonary, or other forms and whether definite or suspected.

29. Note particular form of rickets, knock-knee, spinal curvature, etc.

30. Including deformities of the head, trunk, limbs, spinal curvature, bone disease, deformed chest, shortened limbs, club foot etc.

31. Any weakness or defect not noted above, e.g., hernia, which may unfit a child for ordinary school routine including physical exercise.

Cataamenia may be added to the schedule for girls schools, if desired.

32. The notification card will be issued by the doctor through the teacher to the parents; the counterfoil should be returned to the teacher who will attach it to the schedule and enter the date of return of the counterfoil.

33. Includes a general summing up of the child's health and any peculiarities which may want watching. Includes also any special advice given to the parent or to the teacher regarding modification of school work, exercise, etc.

84. The teacher's remarks should include a general survey of the child's health including his special disabilities.

85. Special inspections should be entered in red ink. The findings at reinspection and any notes of illnesses treated by the family doctor, dispensary, hospital or at a school clinic or in school together with the dates of commencement and completion of the treatment should be entered in black ink.

The follow up of children with defects will be facilitated if a code is used to signify whether the child requires observation or treatment and nature of the treatment advised. Blue pencil may be used to mark the former class of defect for which treatment is unnecessary, but which must be kept under observation in case of unfavourable developments. For example if the child is suffering from slight enlargement of the tonsils which are causing no symptoms the symbol 'R.I.' (re-inspection) may be placed in blue pencil after the defect. Similarly a child wearing glasses for defective vision may need no immediate treatment but should be seen periodically and therefore marked with a blue 'R.I.' Red pencil may be used to mark defects requiring treatment and a red symbol used to indicate the nature of the treatment advised. For example, a red 'C.L.' may signify that the child has been advised to attend the school clinic, a red 'H' that the child has been referred to hospital or dispensary, and a red 'D' that he has been referred to a private practitioner. A circle round the symbol, e.g., R.I. or H. may be used to indicate that a follow up visit to the home is desirable in order to explain to the parents the causes of the disability and the steps to be taken to ameliorate or cure the defect. All cards marked in red or blue pencil will be seen by the doctor at the time of his visit.

